

Corporate Financial Distress

Introduction and Statistical Background

Corporate financial distress, and the legal processes of corporate bankruptcy reorganization (Chapter 11 of the Bankruptcy Code) and liquidation (Chapter 7 of the Bankruptcy Code), has become a familiar economic reality to many U.S. corporations. The business failure phenomenon received some exposure during the 1970s, more during the recession years of 1980–1982 and 1989–1991, heightened attention during the explosion of defaults and large firm bankruptcies in the 2001–2003 post-dotcom period, and unprecedented interest in the 2008–2009 financial and economic crisis period. Between 1989 and 1991, 34 corporations with liabilities greater than \$1 billion filed for protection under Chapter 11 of the Bankruptcy Code; in the three-year period from 2001 to 2003, 102 of these “billion-dollar-babies” with liabilities totaling \$580 billion filed for bankruptcy protection; and from 2008 to 2009, 74 such companies filed for bankruptcy with an unprecedented amount of liabilities totaling over \$1.2 trillion.

The line-up of major corporate bankruptcies was capped by the mammoth filings of Lehman Brothers (\$613 billion in liabilities), General Motors (\$173 billion in liabilities), CIT Group (\$65 billion in liabilities), and Chrysler (\$55 billion in liabilities) during the 2008–2009 financial crisis. In fact, the total amount of liabilities of these four mega cases accounted for 75% of the liabilities of all billion-dollar firms filing for bankruptcy from 2008 to 2009. Three other mega cases from the 2001–2003 period also make the list of the top 10 largest filings, including Conoco (\$56.6 billion in liabilities), WorldCom (\$46.0 billion) and Enron (\$31.2 billion—or, almost double this amount if one adds in Enron’s enormous off-balance liabilities, making it the fourth “largest” bankruptcy in the United States). We note that it is most relevant to discuss the size of bankruptcies in terms of liabilities at filing rather than assets. For example, WorldCom had approximately \$104 billion in book value of assets, but its market value at the

time of filing was probably less than one fifth of that number. General Motors had \$91 billion in book value of assets, but liabilities amounting to \$172 billion. It is the claims against the bankruptcy estate, as well as the going-concern value of the assets, that are most relevant in a bankrupt company. Firm size is no longer a proxy for corporate health and safety. Figure 1.1 shows the number of Chapter 11

Year	Number of Filings	Prepetition Liabilities (\$ millions)	Number of Filings \geq \$1B	\geq \$1B/Total Filings (%)
1989	23	34,516	10	43
1990	35	41,115	10	29
1991	53	82,424	12	23
1992	38	64,677	14	37
1993	37	17,701	5	14
1994	24	8,396	1	4
1995	32	27,153	7	22
1996	33	11,949	1	3
1997	36	18,866	5	14
1998	55	31,913	6	11
1999	107	70,516	19	18
2000	137	99,091	23	17
2001	170	229,861	39	23
2002	136	338,176	41	30
2003	102	115,172	26	25
2004	45	40,100	11	24
2005	36	142,950	11	31
2006	34	22,775	4	12
2007	38	72,338	8	21
2008	146	724,222	24	16
2009	233	603,120	49	21
2010	114	56,835	14	12
2011	84	109,119	7	8
2012	69	71,613	14	20
2013	66	39,480	11	17
2014	59	91,992	14	24
2015	70	79,841	19	27
2016	98	125,305	37	38
2017	91	121,079	24	26
Mean No. of Filings, 1989–2017	76		16	21
Median No. of Filings, 1989–2017	59		12	21
Median No. of Filings, 1998–2017	88		17	
Mean Liabilities, 1989–2017		\$120,424		
Median Liabilities, 1989–2017		\$71,613		

FIGURE 1.1 Chapter 11 Filing Statistics (1989–2017)

Source: Altman and Kuehne (2018b) and Salomon Center.

filings and prepetition liabilities of firms with at least \$100 million in liabilities from 1989 to 2017 (the mega cases). Figure 1.2 lists the top 40 largest bankruptcy filings of all time by the total amount of liabilities. Figure 1.3 lists the top 40 largest bankruptcy filings of all time by Consumer Price Index adjusted total amount of liabilities (in constant 2017 dollars).

Company	Liabilities	Filing Date
Lehman Brothers Holdings, Inc.	613,000	9/15/2008
General Motors Corp.	172,810	6/1/2009
CIT Group, Inc.	64,901	11/1/2009
Conseco, Inc.	56,639	12/2/2002
Chrysler, LLC	55,200	4/30/2009
Energy Future Holdings Corp.	49,701	4/29/2014
WorldCom, Inc.	45,984	7/21/2002
MF Global Holdings Ltd.	39,684	10/31/2011
Refco, Inc.	33,300	10/5/2005
Enron Corp.	31,237	12/2/2001
AMR Corp.	29,352	11/29/2011
Delta Air Lines, Inc.	28,546	9/5/2005
General Growth Properties, Inc.	27,294	4/22/2009
Pacific Gas & Electric Co.	25,717	4/6/2001
Thornburg Mortgage, Inc.	24,700	5/1/2009
Charter Communications, Inc.	24,186	3/27/2009
Calpine Corp.	23,358	12/5/2005
New Century Financial Corp.	23,000	4/2/2007
UAL Corp.	22,164	12/2/2002
Texaco, Inc.	21,603	4/1/1987
Capmark Financial Group, Inc.	21,000	10/25/2009
Delphi Corp.	20,903	10/5/2005
Conseco Finance Corp.	20,279	12/2/2002
Caesars Entertainment Operating Co., Inc.	19,869	1/15/2015
Olympia & York Realty Corp.	19,800	5/15/1992
Lyondell Chemical Co.	19,337	1/6/2009
American Home Mortgage Investment Corp.	19,330	8/6/2007
Adelphia Communications Corp.	18,605	6/1/2002
Northwest Airlines Corp.	17,915	9/5/2005
Mirant Corp.	16,460	7/14/2003
SunEdison, Inc.	16,141	4/21/2016
Residential Capital, LLC	15,276	5/14/2012
Walter Investment Management Corp.	15,216	11/30/2017
Global Crossing, Ltd.	14,639	1/28/2002
Executive Life Insurance Co.	14,577	4/1/1991
NTL, Inc.	14,134	5/2/2002
Mutual Benefit Life Insurance Co.	13,500	7/1/1991
Tribune Co.	12,973	12/8/2008
Reliance Group Holdings, Inc.	12,877	6/12/2001
R.H. Donnelley Corp.	12,374	5/28/2009

FIGURE 1.2 List of 40 Largest Bankruptcy Filings of All Time

Company	Liabilities in 2017 \$	Filing Date
Lehman Brothers Holdings, Inc.	697,846	9/15/2008
General Motors Corp.	197,426	6/1/2009
Conseco, Inc.	77,167	12/2/2002
CIT Group, Inc.	74,146	11/1/2009
Chrysler, LLC	63,063	4/30/2009
WorldCom, Inc.	62,650	7/21/2002
Energy Future Holdings Corp.	51,456	4/29/2014
Texaco, Inc. (incl. subsidiaries)	46,610	4/1/1987
MF Global Holdings Ltd.	43,241	10/31/2011
Enron Corp.	43,231	12/2/2001
Refco, Inc.	41,791	10/5/2005
Delta Air Lines, Inc.	35,825	9/5/2005
Pacific Gas & Electric Co.	35,591	4/6/2001
Olympia & York Realty Corp.	34,590	5/15/1992
AMR Corp.	32,201	11/29/2011
General Growth Properties, Inc.	31,182	4/22/2009
UAL Corp.	30,197	12/2/2002
Calpine Corp.	29,314	12/5/2005
Thornburg Mortgage, Inc.	28,218	5/1/2009
Charter Communications, Inc.	27,631	3/27/2009
Conseco Finance Corp.	27,628	12/2/2002
New Century Financial Corp.	27,189	4/2/2007
Delphi Corp.	26,233	10/5/2005
Executive Life Insurance Co.	26,232	4/1/1991
Adelphia Communications Corp.	25,348	6/1/2002
Mutual Benefit Life Insurance Co.	24,294	7/1/1991
Capmark Financial Group, Inc.	23,991	10/25/2009
American Home Mortgage Investment Corp.	22,851	8/6/2007
Northwest Airlines Corp.	22,483	9/5/2005
Baldwin United Corp.	22,148	9/1/1983
Lyondell Chemical Co.	22,091	1/6/2009
Mirant Corp.	21,926	7/14/2003
Penn Central Transportation	20,846	6/1/1970
Caesars Entertainment Operating Co., Inc.	20,546	1/15/2015
Global Crossing, Ltd.	19,945	1/28/2002
Southeast Banking Corp.	19,574	9/20/1991
NTL, Inc.	19,256	5/2/2002
Campeau Corp. (Allied & Federated)	18,653	1/1/1990
Reliance Group Holdings, Inc.	17,822	6/12/2001
First City Banc. of Texas	16,830	10/31/1992

FIGURE 1.3 List of 40 Largest Bankruptcy Filings of All Time in 2017 Dollars

A variety of terms are used in practice to depict the condition and formal process confronting the distressed firm and characterize the economic problem involved. Four generic terms commonly found in the literature are *failure*, *insolvency*, *default*, and *bankruptcy*. Although these terms are sometimes used interchangeably, they are distinctly different in their meanings and formal usage.

Failure, in an economic sense, means that the realized rate of return on invested capital, with allowances for risk consideration, is significantly lower than prevailing rates on similar investments. Somewhat different economic criteria have also been used, including insufficient revenues to cover costs, or an average return on investment that is continually below the firm's cost of capital. These definitions make no statement about whether to discontinue operations. The term *business failure* was adopted by *Dun & Bradstreet* (D&B), which for many years provided statistics on various business conditions, including exits. D&B defined business failures to include "businesses that cease operation following assignment or bankruptcy; those that cease with loss to creditors after such actions or execution, foreclosure, or attachment; those that voluntarily withdraw, leaving unpaid obligations, or those that have been involved in court actions such as receivership, bankruptcy reorganization, or arrangement; and those that voluntarily compromise with creditors."

Insolvency is another term depicting negative firm performance and is generally used in a more technical fashion. Technical insolvency exists when a firm is unable to meet its debts as they come due. This may, however, be a symptom of a cash flow or liquidity shortfall, which may be viewed as a temporary, rather than a chronic, condition. Balance sheet insolvency is especially critical and refers to when total liabilities exceed a fair valuation of total assets. The real net worth of the firm is, therefore, negative. This condition has implications for how and whether the firm will restructure, and requires a comprehensive analysis of both a going concern and liquidation value. In some countries (but not the United States), a determination of insolvency may be needed for a court to commence formal bankruptcy proceedings.

Default refers to a borrower violating an agreement with a creditor, as specified in the contract with the lender. Technical defaults take place when the firm violates a provision other than a scheduled payment, for example, by violating a covenant such as maintaining a specified minimum current ratio or maximum debt ratio. Violating a loan covenant frequently leads to renegotiation rather than immediate demand for repayment of the loan, and typically signals deteriorating firm performance. When a firm misses a required interest or principal payment, a more formal default occurs. If the problem is not "cured" within a grace period, usually 30 days, the security is declared "in default." After this period, the creditor can exercise its contractually available remedies, such as declaring the full amount of the debt immediately due. Often, an impending payment default triggers a restructuring of debt payments or a formal bankruptcy filing.

Defaults on publicly held indebtedness peaked in the two most recent recession periods, 2001–2002 and 2008–2009. Indeed, in 2001 and 2002, over \$160 billion of publicly held corporate bonds defaulted. In 2009, defaults soared to an unbelievable level of over \$120 billion in a single year! Figure 1.4 shows the history of U.S. public bond defaults from 1971 to 2017, including the dollar amounts and the amounts as a percentage of total high-yield bonds

outstanding—the so-called “junk bond default rate.” Default rates climbed to over 10% in only four years in history (1990, 2001, 2002, and 2009).

Finally, a firm is sometimes referred to as *bankrupt* when, as described above, its liabilities exceed the going concern value of its assets. Until a firm declares bankruptcy in a federal bankruptcy court, accompanied by a petition either to liquidate its assets (Chapter 7) or to reorganize (Chapter 11), it is difficult to discern if a firm is bankrupt. In this book, we refer to firms as bankrupt when they enter court supervised proceedings. In Chapter 3 herein, we study in depth the process and evolution of bankruptcy laws for the United States.

REASONS FOR CORPORATE FAILURES

Corporate failures and bankruptcy filings are a result of financial and/or economic distress. A firm in financial distress experiences a shortfall in cash flow needed to meet its debt obligations. Its business model does not necessarily have fundamental problems and its products are often attractive. In contrast, firms in economic distress have unsustainable business models and will not be viable without asset restructuring. In practice, many distressed firms suffer from a combination of the two. Many factors contribute to the high number of corporate failures. We list the most common reasons below.

1. *Poor operating performance and high financial leverage*

A firm's poor operating performance may result from many factors, such as poorly executed acquisitions, international competition (e.g., steel, textiles), overcapacity, new channels of competition within an industry (e.g., retail), commodity price shocks (e.g., energy), and cyclical industries (e.g., airlines). High financial leverage exacerbates the effect of poor operating performance on the likelihood of corporate failure.

2. *Lack of technological innovation*

Technological innovation creates negative shocks to firms that do not innovate. The arrival of a new technology often threatens the survival of firms that possess related, yet less competitive, technologies. For example, when digital recording eventually took over dry-film technologies in the 2000s, firms focusing on the older technologies were driven out of business.

3. *Liquidity and funding shock*

A potential funding risk known as rollover risk received heightened attention from both academics and practitioners after the 2008–2009 financial crisis. In periods of weak credit supply, some firms are unable to roll over maturing debt because of illiquidity in credit markets. This concern was particularly acute following the onset of the 2008–2009 financial crisis.

Year	Par Value Outstanding ^(a)	Par Value Defaults	Default Rates
2017	\$1,622,365	\$29,301	1.806%
2016	\$1,656,176	\$68,066	4.110%
2015	\$1,595,839	\$45,122	2.827%
2014	\$1,496,814	\$31,589	2.110%
2013	\$1,392,212	\$14,539	1.044%
2012	\$1,212,362	\$19,647	1.621%
2011	\$1,354,649	\$17,963	1.326%
2010	\$1,221,569	\$13,809	1.130%
2009	\$1,152,952	\$123,878	10.744%
2008	\$1,091,000	\$50,763	4.653%
2007	\$1,075,400	\$5,473	0.509%
2006	\$993,600	\$7,559	0.761%
2005	\$1,073,000	\$36,209	3.375%
2004	\$933,100	\$11,657	1.249%
2003	\$825,000	\$38,451	4.661%
2002	\$757,000	\$96,858	12.795%
2001	\$649,000	\$63,509	9.801%
2000	\$597,200	\$30,295	5.073%
1999	\$567,400	\$23,532	4.147%
1998	\$465,500	\$7,464	1.603%
1997	\$335,400	\$4,200	1.252%
1996	\$271,000	\$3,336	1.231%
1995	\$240,000	\$4,551	1.896%
1994	\$235,000	\$3,418	1.454%
1993	\$206,907	\$2,287	1.105%
1992	\$163,000	\$5,545	3.402%
1991	\$183,600	\$18,862	10.273%
1990	\$181,000	\$18,354	10.140%
1989	\$189,258	\$8,110	4.285%
1988	\$148,187	\$3,944	2.662%
1987	\$129,557	\$7,486	5.778%
1986	\$90,243	\$3,156	3.497%
1985	\$58,088	\$992	1.708%
1984	\$40,939	\$344	0.840%
1983	\$27,492	\$301	1.095%
1982	\$18,109	\$577	3.186%
1981	\$17,115	\$27	0.158%
1980	\$14,935	\$224	1.500%
1979	\$10,356	\$20	0.193%
1978	\$8,946	\$119	1.330%
1977	\$8,157	\$381	4.671%
1976	\$7,735	\$30	0.388%
1975	\$7,471	\$204	2.731%
1974	\$10,894	\$123	1.129%
1973	\$7,824	\$49	0.626%
1972	\$6,928	\$193	2.786%
1971	\$6,602	\$82	1.242%

FIGURE 1.4 Historical Default Rates—Straight Bonds Only (Excluding Defaulted Issues from Par Value Outstanding), 1971–2017 (\$ Millions)

Source: Salomon Center at New York University Stern School of Business.

			Standard Deviation
Arithmetic Average Default Rate	1971 to 2017	3.104%	3.006%
	1978 to 2017	3.347%	3.191%
	1985 to 2017	3.759%	3.312%
Weighted Average Default Rate ^(b)	1971 to 2017	3.378%	
	1978 to 2017	3.381%	
	1985 to 2017	3.394%	
Median Annual Default Rate	1971 to 2017	1.906%	

^(a)As of mid-year.

^(b)Weighted by par value of amount outstanding for each year.

FIGURE 1.4 (Continued)

4. Relatively high new business formation rates in certain periods

New business formation is usually based on optimism about the future. But new businesses fail with far greater frequency than do more seasoned entities, and the failure rate can be expected to increase in the years immediately following a surge in new business activity.

5. Deregulation of key industries

Deregulation removes the protective cover of a regulated industry (e.g., airlines, financial services, healthcare, energy) and fosters larger numbers of entering and exiting firms. Competition is far greater in a deregulated environment. For example, after the airline industry was deregulated at the end of the 1970s, airline failures multiplied in the 1980s and have continued since then.

6. Unexpected liabilities

Firms may fail because off-balance sheet contingent liabilities suddenly become material on-balance sheet liabilities. For example, a number of U.S. firms failed due to litigation related to asbestos, tobacco, and silicone breast implants. Firms may also inherit uncertain liabilities through acquisitions. Energy firms and mining firms may inherit unanticipated environmental obligations via asset purchases. Financial institutions, such as Washington Mutual, inherited liabilities related to subprime mortgage related litigation in the aftermath of the 2008–2009 financial crisis.

These factors play heavily in the prediction and avoidance of financial distress and bankruptcy. Fifty years after its introduction, the Altman Z-score remains one of the most widely used credit scoring models used by practitioners and academics to indicate the probability of default. Part Two of this book is devoted to default and bankruptcy prediction models, including the Altman Z-score and its derivatives.

BANKRUPTCY AND REORGANIZATION THEORY

The continuous entrance and exit of productive entities are natural components of any economic system. The phrase “creative destruction,” referring to the ongoing process by which innovation leads new producers to replace outdated ones, was coined by Joseph Schumpeter (1942), who described it as an “essential fact about capitalism.”

Because of the inherent costs to society of the failure of business enterprises, laws and procedures have been established (1) to protect the contractual rights of interested parties, (2) to orderly liquidate unproductive assets, and (3) when deemed desirable, to provide for a moratorium on certain claims to give the debtor time to become rehabilitated and to emerge from the process as a continuing entity. Both liquidation and reorganization are available courses of action in many countries of the world and are based on the following premise: If an entity’s intrinsic or going-concern value is greater than its current liquidation value, then the firm should be permitted to attempt to reorganize and continue. If, however, the firm’s assets are worth more “dead than alive” – that is, if liquidation value exceeds the economic going-concern value – liquidation is the preferred alternative. In the end, the efficiency of any bankruptcy system can be judged by its ability to appropriately identify and provide for the restructuring of firms that arguably should be able to survive.

There are, however, challenges to reach an economically efficient outcome. These include, for example, conflicting incentives of differing priority claimants regarding the liquidation versus continuation decision; incentives of one set of claimants to accelerate its claims to the detriment of the firm value as a whole, known as the “collective action” problem; and inability to reach agreement among dispersed claimants. Perhaps one of the largest challenges to the process is that the going concern and liquidation values are not objective and observable. Such challenges often make a less costly out-of-court solution impossible and necessitate a formal legal framework for restructuring or liquidating a firm under court supervision. In Chapters 3 and 4 of this book, we explore the various options, both in and out of court, for restructuring distressed firms.

The primary benefit of a reorganization-based system is to enable economically productive assets to continue to contribute to society’s supply of goods and services, to say nothing of preserving the jobs of the firm’s employees, revenues of its suppliers, and tax payments. However, these benefits need to be weighed against the costs of bankruptcy to the firm and to society.

DISTRESSED RESTRUCTURING IN A NUTSHELL

Distressed restructuring is all about fixing failed firms. The general goal is to restructure either the left-hand side of the balance sheet, known as *asset restructuring*, and/or the right-hand side of the balance sheet, known as

financial restructuring. The motivation for asset restructuring is to improve operations and thus cash flows and redeploy underperforming or unexploited assets to more efficient users. One common way to achieve this is to install new managers, often with the help of turnaround specialists, with a focus on maximizing the size of the company value “pie.” The motivation for financial restructuring is to make the firm’s cost of capital cheaper. Firms with an “expensive” capital structure need financial restructuring to deleverage the firm to a level that is sustainable in the long-term.

There are many restructuring options available to a distressed firm. In out-of-court restructurings, firms bargain with creditors and other stakeholders in private negotiations. Such restructurings typically result in senior debt claims being exchanged for new debt claims, either senior or junior, and junior debt claims being exchanged for equity claims, with equity holders taking significant dilution. The success of such debt-for-equity swaps depends largely on whether creditors can effectively coordinate their votes on the distressed exchange proposal and whether they fare better in an out-of-court restructuring than an in-court restructuring. The in-court option refers to restructuring under the supervision of the bankruptcy court. The major benefits for the formal bankruptcy proceedings are that the Bankruptcy Code equips the debtor with many valuable options for restructuring debt claims and assets and resolves the coordination problems of bargaining by debtholders. However, the disadvantage is that they are lengthier and thus more expensive than the out-of-court option. We explore the outcomes and costs of distressed restructurings in Chapter 4 herein.

THE DISTRESSED RESTRUCTURING INDUSTRY PLAYERS

The fact that corporate distress and bankruptcy in the United States is a major industry can be demonstrated by the size and scope of activities associated with this field. The bankruptcy “space” today attracts a record number of practitioners and researchers. One reason is the size of the entities that found it necessary to file for bankruptcy during and after the 2008–2009 financial crisis. A list of the major “players” in the bankruptcy “game” and the related distressed firm industry are:

- Bankrupt firms (debtors)
- Bankruptcy legal system (judges, trustees, etc.)
- Creditors and committees
- Bankruptcy law specialists
- Bankruptcy insolvency accountants and tax specialists
- Distressed turnaround specialists
- Financial restructuring advisors
- Distressed securities traders and analysts
- Bankruptcy and workout publications and data providers

To a large extent, the 1978 Bankruptcy Act provides that management of the bankrupt firm, known as the “debtor in possession,” retains significant influence, if not control, over the process. This in turn affects, ex-ante, the firm’s ability to renegotiate claims in advance of or to avoid a filing.

As of 2016, there were 349 bankruptcy judgeships nationwide authorized to guide the debtors and their various creditors through the bankruptcy process.¹ These are federal judges who serve in 94 judicial districts encompassing the 50 states, the District of Columbia, Puerto Rico, Guam, and the Northern Mariana Islands. Bankruptcy judges are assisted by the U.S. Trustees Program, a component of the Department of Justice, which plays a major role in administering the huge flow of cases in the system. Among other responsibilities, the U.S. Trustee appoints a committee to represent unsecured creditors, and other committees as justified for a particular case. A trustee oversees the liquidation and distributions in a Chapter 7 case; in Chapter 11, a trustee is more rarely appointed, generally to replace management of the bankrupt debtor in cases of mismanagement or fraud.

The nation’s large core of bankruptcy lawyers make up an important constituency in the bankruptcy process. These lawyer-consultants represent the many stakeholders in the process, including the debtor, creditors, equity holders, employees, and even tax authorities. Martindale lists more than 110,000 bankruptcy lawyers in 2017 (see www.martindale.com). The New York area alone has more than 3,000 bankruptcy lawyers listed. Some of the large law firms with specialization in the bankruptcy area include Kirkland & Ellis, Weil Gotshal & Manges; Akin Gump Strauss Hauer & Feld; Jones Day; Skadden, Arps, Slate, Meagher & Flom; Milbank, Tweed, Hadley & McCloy; Paul, Weiss, Rifkind, Wharton & Garrison; and Davis, Polk, & Wardell, among many others.²

There are two groups of restructuring advisory firms in the industry. The first group focuses on asset restructuring, helping troubled companies improve operations, often to avoid a bankruptcy filing. These firms are known to house and provide *turnaround specialists* to distressed firms. Well-known players in the field include AlixPartners, Alvarez & Marsal, and FTI. The other group focuses on financial restructuring, managing and advising a company’s capital structure renegotiations. Well-known players in the field include Lazard Freres, PJT Partners (formerly the Blackstone Group), Miller Buckfire, N. M. Rothschild & Sons, Evercore, and Greenhill, although there are also several smaller successful operations. On the creditor advisory side, the largest advisers are Houlihan Lokey Howard & Zuckin; Jefferies; Chanin; FTI; and Giuliani Partners. The last two are carve-outs or sales of divisions from accounting firms.

The nature of the firm’s claims, and the identity of the owners of those claims once a firm is distressed, have an important effect on the dynamics of the renegotiation process, whether in or out of court. In many larger cases, original bank lenders may have sold their position to specialized investors as the firm’s performance notably declines. Similarly, private-equity-like investors may have replaced original purchasers of the firm’s bonds or notes, or even claims of trade creditors.

Lastly, just as important to strategists and researchers is the availability of data on distressed firms from many sources, as noted throughout this text.

BANKRUPTCY FILINGS

The two broad categories of bankruptcy filings are business (Chapter 7, Chapter 11, Chapter 12, and Chapter 13 of the US Bankruptcy Code) and consumer filings (Chapter 7, Chapter 11, and Chapter 13 of the US Bankruptcy Code). A third and rarely observed category is bankruptcy filings by municipalities, such as the city of Detroit, Michigan (Chapter 9). Figure 1.5 lists the bankruptcy filings for business and nonbusiness entities from 1985–2017, while Figure 1.6 lists bankruptcy filings by the bankruptcy Chapter from 1985 to 2017. Although the vast majority are consumer bankruptcies, with as much as 97% of the total filings in recent years, this book focuses exclusively on large business filings, primarily Chapter 11, and filings by public companies. Figure 1.7 plots the number of filings and prepetition liabilities of companies with a minimum of \$100 million in liabilities from 1989 to 2017. Examining Figure 1.5 reveals some observations worth mentioning.

First, the incredible increase in nonbusiness (consumer) bankruptcies before 2005 and again from 2008–2011 is apparent, reflecting the huge increase in personal indebtedness in the United States during the periods. The number of personal bankruptcies increased almost fivefold from 1985 to 2005. With the tougher conditions for consumers filing for bankruptcy under the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 (BAPCPA), the number of nonbusiness bankruptcies declined sharply after 2005. Interestingly, the large increase in non-business bankruptcy filings from 2004 to 2005 and the large decline in the year after may reflect that consumers strategically timed their filings before the new law was enacted in October 2005.

Second, the absolute number of business filings has been trending downwards in the past three decades. The number of filings decreased to a record low of less than 20,000 in 2006 and tripled in the “heady” years of 2008/2009, before falling to historically low levels starting in 2014.

Third, despite the decrease in the number of filings since the early 1990s, total liabilities of the larger business bankruptcies swelled to record levels in the 2008–2009 period. This trend has fed the distressed debt investment sector and has given unprecedented importance to this “new” alternative asset class (see our discussion in Chapters 14–15 herein).

From 2011–2017, the average annual number of filings with liabilities greater than \$100 million, both public and private (77), has been in line with the historical average (76) over the 38-year period (1980–2017). Figure 1.7 shows a declining trend in the number of public filings starting from 2010 to 2015. The 98 filings in 2016 and 91 filings in 2017 are both higher than the historical average from 1989–2017 (76) and the median (59), for the same period. Particularly, energy

Year	Business	Nonbusiness	Total	Business Percent of Total
1985	71,242	341,189	412,431	17.28%
1986	80,879	449,129	530,008	15.26%
1987	81,999	492,850	574,849	14.26%
1988	63,775	549,831	613,606	10.39%
1989	63,227	616,753	679,980	9.30%
1990	64,853	718,107	782,960	8.28%
1991	71,549	872,438	943,987	7.58%
1992	70,643	900,874	971,517	7.27%
1993	62,304	812,898	875,202	7.12%
1994	52,374	780,455	832,829	6.29%
1995	51,959	874,642	926,601	5.61%
1996	53,549	1,125,006	1,178,555	4.54%
1997	54,027	1,350,118	1,404,145	3.85%
1998	44,367	1,398,182	1,442,549	3.08%
1999	37,884	1,281,581	1,319,465	2.87%
2000	35,472	1,217,972	1,253,444	2.83%
2001	40,099	1,452,030	1,492,129	2.69%
2002	38,540	1,539,111	1,577,651	2.44%
2003	35,037	1,625,208	1,660,245	2.11%
2004	34,317	1,563,145	1,597,462	2.15%
2005	39,401	2,039,214	2,078,415	1.90%
2006	19,695	597,965	617,660	3.19%
2007	28,322	822,590	850,912	3.33%
2008	43,546	1,074,225	1,117,771	3.90%
2009	60,837	1,412,838	1,473,675	4.13%
2010	56,282	1,536,799	1,593,081	3.53%
2011	47,806	1,362,847	1,410,653	3.39%
2012	40,075	1,181,016	1,221,091	3.28%
2013	33,212	1,038,720	1,071,932	3.10%
2014	26,983	909,812	936,795	2.88%
2015	24,735	819,760	844,495	2.93%
2016	24,114	770,846	794,960	3.03%
2017	23,157	765,863	789,020	2.93%
Total	1,576,261	34,294,014	35,081,055	4.49%

FIGURE 1.5 Bankruptcy Filings by Type, 1985–2017

Source: *The Bankruptcy Yearbook & Almanac* and United States Courts Form F-2 (<http://www.uscourts.gov/>).

companies prominently populated defaults and bankruptcies from 2015 to 2017. The 98 defaults and bankruptcies in the energy sector in the period from January 2015 through June 2017 accounted for 47% of all defaults in that sector over the 47-year time series from 1970 to 2017. The number of mega-bankruptcies with liabilities greater than \$1 billion in 2017 (24) was about 1.5 times greater than the historical average over the 38-year period (1980–2017) of 16.

Year	Chapter 7	Chapter 9	Chapter 11	Chapter 12	Chapter 13	Chapter 15
1985	280,986	N/A	23,374	N/A	108,059	–
1986	374,452	N/A	24,740	601	130,200	–
1987	406,761	N/A	19,901	6,078	142,065	–
1988	437,882	5	17,690	2,034	155,969	–
1989	476,993	9	18,281	1,440	183,228	–
1990	543,334	13	20,783	1,346	217,468	–
1991	656,460	18	23,989	1,495	262,006	–
1992	681,663	14	22,634	1,608	265,577	–
1993	602,980	12	19,174	1,243	251,773	–
1994	567,240	16	14,773	900	249,877	–
1995	626,150	10	12,904	926	286,588	–
1996	810,400	8	11,911	1,083	355,123	–
1997	989,372	10	10,765	949	403,025	–
1998	1,035,696	3	8,386	807	397,619	–
1999	927,074	5	9,315	834	382,214	–
2000	859,220	11	9,884	407	383,894	–
2001	1,054,927	8	11,424	383	425,292	–
2002	1,109,923	7	11,270	485	455,877	–
2003	1,176,905	6	9,404	712	473,137	–
2004	1,137,958	6	10,132	102	449,129	–
2005	1,659,017	11	6,800	380	412,130	6
2006	360,890	5	5,163	348	251,179	75
2007	519,364	6	6,352	376	324,771	42
2008	744,424	4	10,160	345	362,762	76
2009	1,050,832	12	15,189	544	406,962	136
2010	1,139,601	7	13,713	723	438,913	124
2011	992,332	13	11,529	637	406,084	58
2012	843,545	20	10,361	512	366,532	121
2013	728,833	9	8,980	395	333,326	88
2014	619,069	12	7,234	361	310,061	58
2015	535,047	4	7,241	407	301,705	91
2016	490,365	8	7,292	461	296,655	179
2017	486,347	7	7,442	501	294,637	86
Total	24,926,042	279	428,190	29,429	10,483,837	1,140

FIGURE 1.6 Bankruptcy Filings by Bankruptcy Chapter, 1985–2017

Source: *The Bankruptcy Yearbook & Almanac* and United States Courts Form F-2 (<http://www.uscourts.gov/>).

Trends in bankruptcy filings and their impact on the entire corporate bankruptcy system is more complicated than simply the number and dollar value of filings. For example, the time spent in reorganization from filing to emergence, the number of out of court exchanges or “prepackaged” Chapter 11 filings, the success of the reorganization, and the roles of creditors, are all evolving factors that we discuss in this book.

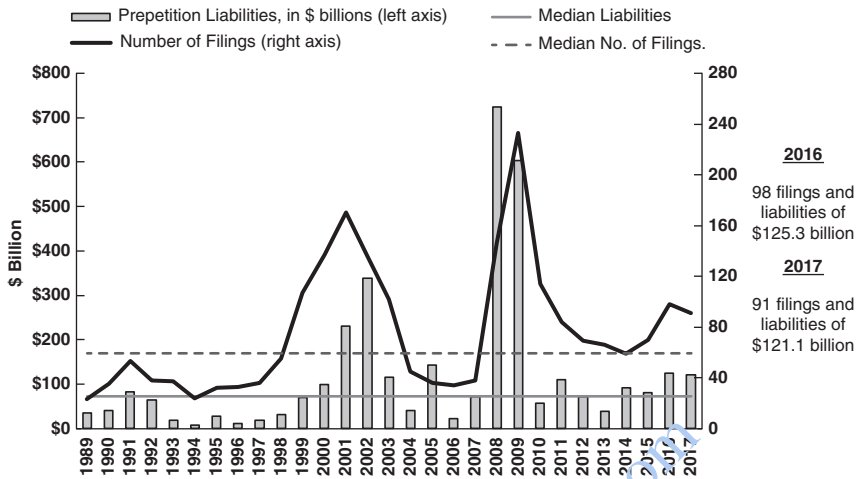


FIGURE 1.7 Number of Filings and Prepetition Liabilities of Public Companies, 1989–2017

Note: Minimum \$100 million in liabilities.

Sources: NYU Salomon Center Bankruptcy Filings Database.

CHAPTER 22 DEBTORS AND BANKRUPTCY SUCCESS

The primary goal of the reorganization process is to relieve the burden of the debtor's liabilities and restructure the firm's assets and capital structure so that financial and operating problems will not recur in the foreseeable future.

The bankruptcy reorganization process is, unfortunately, not always successful even if the firm emerges as a continuing entity. It is certainly possible for the emerged firm to fail again and file a second time (or even a third time, etc.) for protection under the Code. We first coined the term “Chapter 22” in the second edition of this book to illustrate those companies that have filed twice. These Chapter 22s were saddled with too much debt and/or the business outlook was overly optimistic at the time of emergence the first time. There have even been Chapter 44 cases; one famous example is Trump Entertainment Resorts (formerly known as Trump Hotels and Casino Resorts and Trump Plaza), which filed for bankruptcy in 1991, 1992, 2004, and 2009; another is Global Aviation Holdings (formerly known as ATA Holdings) that filed in 2004, 2008, 2012, and 2013.

In Chapter 7 of this book, we explore outcomes of bankruptcy cases [as well as post-emergence performance]. Figure 1.8 lists the estimated number of Chapter 22s, 33s, 44s, and even 55s each year since 1984. During this period, 290 firms have filed twice (informally known as Chapter 22), 18 firms have filed three times (informally known as Chapter 33), three firms filed four times (informally known as Chapter 44), and Trump's Casinos and Resorts have had five different filings!

Year	Chapter 22s	Chapter 33s	Chapter 44s	Chapter 55s	Total Bankruptcy Filings ^a	% Multiple Filers
1984–1989	18	0	0	0	788	2.28
1990	10	0	0	0	115	8.7
1991	9	0	0	0	123	7.32
1992	6	0	0	0	91	6.59
1993	8	0	0	0	86	9.3
1994	5	0	0	0	70	7.14
1995	9	0	0	0	85	10.59
1996	12	2	0	0	86	16.28
1997	5	0	0	0	83	6.02
1998	2	1	0	0	122	2.46
1999	10	0	0	0	145	6.9
2000	12	1	0	0	187	6.95
2001	17	2	0	0	265	7.17
2002	11	0	1	0	229	5.24
2003	17	1	0	0	176	10.23
2004	6	0	0	0	93	6.45
2005	9	1	0	0	86	11.63
2006	4	0	0	0	66	6.06
2007	8	1	0	0	78	11.54
2008	19	0	0	0	138	13.77
2009	18	1	1	0	211	9.48
2010	10	1	0	0	106	10.38
2011	5	2	0	0	86	8.14
2012	12	1	0	0	87	14.94
2013	11	2	1	0	71	19.72
2014	7	0	0	1	54	14.81
2015	8	0	0	0	79	10.13
2016	13	2	0	0	99	15.15
2017	9	0	0	0	71	12.68
Totals	290	18	3	1	3,976	
Average, Annual					9.59	
Average, Overall					7.85	

^aMust have been a public company at the time of one of the filings.

FIGURE 1.8 Chapter 22s, 33s, 44s and 55s in the United States (1984–2017)

Sources: *The Bankruptcy Almanac*, annually (Boston: New Generation Research); and Altman and Hotchkiss, *Corporate Financial Distress and Bankruptcy*, 3rd ed. (Hoboken, NJ: John Wiley & Sons, 2006).

# of Chapter 22, 33, 44, and 55 Filings (1984–2017)	312
# of Emergences and Acquired (1981–2014)	1,525
% Refiled after Emergence Only	20.46%

FIGURE 1.9 Percent of Chapter 11 Public Company Emergences that Later Result in a Repeat Filing (1984–2017)

Sources: *The Bankruptcy Almanac*, annually (Boston: New Generation Research); and Altman and Hotchkiss, *Corporate Financial Distress and Bankruptcy* 3rd ed. (Hoboken, NJ: John Wiley & Sons, 2006).

Through 2017 (Figure 1.9), there were 312 multiple filings, almost 8% of total bankruptcy filings for the same period. Importantly, an estimated 20% of all firms emerging from the bankruptcy process as a “going concern” have subsequently refiled. As one can observe, the totals are nontrivial and are interpreted by some observers as indicating problems in our distressed restructuring system.

DISTRESS INVESTING

With the fast development and maturing of the leveraged finance markets, and the significant increase in both the quantity and size of entities that filed for bankruptcy in past two decades, distressed claims has emerged as an important asset class that has become more widespread in the investment community.

Recent industry reports show that distressed investing is regarded as one of the most profitable strategies implemented by alternative investing funds, outperforming many other common hedge fund strategies.³ There are a few reasons why distressed investments may offer attractive risk-adjusted rate of returns. First, distressed debt is often purchased at large discounts from lenders who lend at par. For example, a bank might sell due to regulatory concerns and unwillingness to get involved in the restructuring process. Further, high-yield mutual funds might unload positions at a discount (so called “fire sales”) when they experience shocks to fund flows. Second, there are steep barriers to entry for investing in this market due to required experience, expertise, transaction costs, illiquidity, and scale of funding needed in the restructuring process. These barriers have resulted in a smaller group of sophisticated distressed debt investors.

There are generally two major types of distressed investors. The first group focuses on distress-for-control investing. These investors are typically private equity firms, who pursue the “loan-to-own” strategy through which they identify and purchase the “fulcrum” security with the goal of converting it to majority equity ownership in the emerged entity. These investors do not sell out the equity stake immediately after restructuring and typically have a three- to five-year investment horizon. They proactively get involved in corporate governance such

as management and board selection and the business operations of the firm in reorganization and after.

The second group of investors are typically hedge funds with expertise in trading distressed claims and managing the bankruptcy process. They do not aim for a majority equity stake but often seek profits through identifying underpriced claims, though they sometimes also adopt strategies to influence the reorganization process. Some investors within this group focus on purchasing and consolidating trade or other claims, and gain from resolving the coordination problems among dispersed creditors.

In practice, while we have presented the two types of distressed investors here as distinct, the line can blur with hedge funds sometimes going for control and private equity firms sometimes focusing more on trading profits. Part Two of this book provides a comprehensive overview of the strategies employed by distressed investors and the returns and risk profiles of distressed debt.

NOTES

1. See <http://www.uscourts.gov/statistics-reports/status-bankruptcy-judgeships-judicial-business-2016>.
2. Vault releases an annual list of best law firms for restructuring and bankruptcy. For the most up-to-date list, see <http://www.vault.com/company-rankings/law/>.
3. Credit Suisse compiles hedge fund index returns for various trading strategies and releases periodic reports on their performance.