# Corporate Restructuring

**In the last chapter** we described how mergers and acquisitions enable companies to change their ownership and management teams, and often force major shifts in corporate strategy. But this is not the only way that company structure can be altered. In this chapter we look at a variety of other mechanisms for changing ownership and control, including leveraged buyouts (LBOs), spin-offs and carve-outs, nationalizations and privatizations, workouts, and bankruptcy.

The first section starts with a famous takeover battle, the leveraged buyout of RJR Nabisco. The rest of Sections 32-1 and 32-2 offers a general review of LBOs, spin-offs, and privatizations. The main point of these transactions is not just to change control, although existing management is often booted out, but also to change incentives for managers and improve financial performance.

RJR Nabisco was an early example of a **private-equity** deal. Section 32-3 takes a closer look at how private-equity investment funds are structured and how the private-equity business has developed since the 1980s.

Private-equity funds usually end up holding a portfolio of companies in different industries. In this respect they resemble the conglomerates that dominated takeover activity in the 1960s and 1970s. These conglomerates are mostly gone—it seems that private equity is a superior financial technology for doing the tasks that conglomerates used to do. Our review of conglomerates' weaknesses helps us to understand the strengths of private equity.

Some companies choose to restructure but others have it thrust upon them. None more so than those that fall on hard times and can no longer service their debts. The chapter therefore concludes by looking at how distressed companies either work out a solution with their debtors or go through a formal bankruptcy process.

## 32-1 Leveraged Buyouts

**Leveraged buyouts (LBOs)** differ from ordinary acquisitions in two immediately obvious ways. First, a large fraction of the purchase price is financed by debt. Some, if not all, of this debt is junk, that is, below investment-grade. Second, the company goes private and its shares no longer trade on the open market. Equity financing for LBOs comes from private-equity investment partnerships, which we describe later in this chapter. When a buyout is led by existing management, the transaction is called a **management buyout** or **MBO.**

In the 1970s and 1980s many MBOs were arranged for unwanted divisions of large diversified companies. Smaller divisions outside the companies' main line of business sometimes failed to attract top management's interest and commitment, and divisional management chafed under corporate bureaucracy. Many such divisions flowered when

| Industry | Acquirer | Target | Year | Value ($ billions) |
|---|---|---|---|---|
| Food, tobacco | KKR | RJR Nabisco | 1989 | $24.7 |
| Food | KKR | Beatrice | 1986 | 6.3 |
| Glass | KKR | Owens-Illinois | 1987 | 4.7 |
| Supermarkets | KKR | Safeway | 1986 | 4.2 |
| Convenience stores | Thompson Co. | Southland (7-11) | 1987 | 4.0 |
| Airlines | Wings Holdings | NWA, Inc. | 1989 | 3.7 |
| Utilities | TPG, KKR | TXU | 2007 | 45.0 |
| Real estate | Blackstone Gp | Equity Office Properties | 2007 | 38.9 |
| Entertainment | Apollo Management Texas Pacific Group | Harrah's Entertainment | 2008 | 31.3 |
| Credit card processing | KKR | First Data | 2007 | 29.0 |
| Hotels | Blackstone | Hilton | 2007 | 26.9 |
| Pipelines | Management, several private-equity groups. | Kinder Morgan | 2007 | 21.6 |
| Radio | Thomas Lee, Bain Capital | Clear Channel Communications | 2007 | 19.4 |

**TABLE 32.1**

The 10 largest LBOs of the 1980s, plus examples of more-recent deals (values in $ millions).

*Source: Mergers and Acquisitions,* various issues.

spun off as MBOs. Their managers, pushed by the need to generate cash for debt service and encouraged by a substantial personal stake in the business, found ways to cut costs and compete more effectively.

In the 1980s, LBO activity shifted to buyouts of entire businesses, including large, mature, public corporations. Table 32.1 lists the largest LBOs of the 1980s, plus a sample of more-recent transactions.

Table 32.1 starts with the largest, most dramatic, and best documented LBO of the 1980s, the $25 billion takeover of RJR Nabisco by Kohlberg, Kravis, Roberts (KKR). The players, tactics, and controversies of LBOs are writ large in this case.

## RJR Nabisco

In October 1988 the board of directors of RJR Nabisco revealed that Ross Johnson, the company's chief executive officer, had formed a group of investors that proposed to buy all RJR's stock for $75 per share in cash and take the company private. RJR's share price immediately moved to about $75, handing shareholders a 36% gain over the previous day's price of $56. At the same time RJR's bonds fell, since it was clear that existing bondholders would soon have a lot more company.[1]

Johnson's offer lifted RJR onto the auction block. Once the company was in play, its board of directors was obliged to consider other offers, which were not long in coming. Four days later, KKR bid $90 per share, $79 in cash plus PIK preferred stock valued at $11. (PIK means "pay in kind." The company could choose to pay preferred dividends with more preferred shares rather than cash.)

The resulting bidding contest had as many turns and surprises as a Dickens novel. In the end it was Johnson's group against KKR. KKR bid $109 per share, after adding $1 per share (roughly $230 million) in the last hour.[2] The KKR bid was $81 in cash, convertible

[1] N. Mohan and C. R. Chen track the abnormal returns of RJR securities in "A Review of the RJR Nabisco Buyout," *Journal of Applied Corporate Finance* 3 (Summer 1990), pp. 102–108.

[2] The whole story is reconstructed by B. Burrough and J. Helyar in *Barbarians at the Gate: The Fall of RJR Nabisco* (New York: Harper & Row 1990)—see especially Chapter 18—and in a movie with the same title.

subordinated bonds valued at about $10, and PIK preferred shares valued at about $18. Johnson's group bid $112 in cash and securities.

But the RJR board chose KKR. Although Johnson's group had offered $3 a share more, its security valuations were viewed as "softer" and perhaps overstated. The Johnson group's proposal also contained a management compensation package that seemed extremely generous and had generated an avalanche of bad press.

But where did the merger benefits come from? What could justify offering $109 per share, about $25 billion in all, for a company that only 33 days previously was selling for $56 per share? KKR and other bidders were betting on two things. First, they expected to generate billions in additional cash from interest tax shields, reduced capital expenditures, and sales of assets that were not strictly necessary to RJR's core businesses. Asset sales alone were projected to generate $5 billion. Second, they expected to make the core businesses significantly more profitable, mainly by cutting back on expenses and bureaucracy. Apparently, there was plenty to cut, including the RJR "Air Force," which at one point included 10 corporate jets.

In the year after KKR took over, a new management team set out to sell assets and cut back operating expenses and capital spending. There were also layoffs. As expected, high interest charges meant a net loss of nearly a billion dollars in the first year, but pretax operating income actually increased, despite extensive asset sales.

Inside the firm, things were going well. But outside there was confusion and prices in the junk bond market were declining rapidly, implying much higher future interest charges for RJR and stricter terms on any refinancing. In 1990 KKR made an additional equity investment in the firm and the company retired some of its junk bonds. RJR's chief financial officer described the move as "one further step in the deleveraging of the company."[3] For RJR, the world's largest LBO, it seemed that high debt was a temporary, not a permanent, virtue.

RJR, like many other firms that were taken private through LBOs, enjoyed only a short period as a private company. In 1991 it went public again with the sale of $1.1 billion of stock. KKR progressively sold off its investment, and its last remaining stake in the company was sold in 1995 at roughly the original purchase price.

## Barbarians at the Gate?

The RJR Nabisco LBO crystallized views on LBOs, the junk bond market, and the takeover business. For many it exemplified all that was wrong with finance in the late 1980s, especially the willingness of "raiders" to carve up established companies, leaving them with enormous debt burdens, basically in order to get rich quick.[4]

There was plenty of confusion, stupidity, and greed in the LBO business. Not all the people involved were nice. On the other hand, LBOs generated large increases in market value, and most of the gains went to the selling shareholders, not to the raiders. For example, the biggest winners in the RJR Nabisco LBO were the company's stockholders.

The most important sources of added value came from making RJR Nabisco leaner and meaner. The company's new management was obliged to pay out massive amounts of cash to service the LBO debt. It also had an equity stake in the business and therefore strong incentives to sell off nonessential assets, cut costs, and improve operating profits.

LBOs are almost by definition *diet deals.* But there were other motives. Here are some of them.

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[3] C. Andress, "RJR Swallows Hard, Offers $5-a-Share Stock," *The Wall Street Journal,* December 18, 1990, pp. C1–C2.

[4] This view persists in some quarters: in April 2005, Franz Müntefering, Chairman of the German Social Democratic Party, branded private-equity investors as a plague of "locusts" bent on devouring German industry. Try an Internet search on "private equity" with "locusts."

**The Junk Bond Markets** LBOs and debt-financed takeovers may have been driven by artificially cheap funding from the junk bond markets. With hindsight, it seems that investors underestimated the risks of default in junk bonds. Default rates climbed painfully, reaching 10.3% in 1991.[5] The market also became temporarily much less liquid after the demise in 1990 of Drexel Burnham, the investment banking firm that was the chief market maker in junk bonds.

**Leverage and Taxes** Borrowing money saves taxes, as we explained in Chapter 18. But taxes were not the main driving force behind LBOs. The value of interest tax shields was simply not big enough to explain the observed gains in market value.[6] For example, Richard Ruback estimated the present value of additional interest tax shields generated by the RJR LBO at $1.8 billion.[7] But the gain in market value to RJR stockholders was about $8 billion.

Of course, if interest tax shields were the main motive for LBOs' high debt, then LBO managers would not be so concerned to pay down debt. We saw that this was one of the first tasks facing RJR Nabisco's new management.

**Other Stakeholders** We should look at the total gain to all investors in an LBO, not just to the selling stockholders. It's possible that the latter's gain is just someone else's loss and that no value is generated overall.

Bondholders are the obvious losers. The debt that they thought was secure can turn into junk when the borrower goes through an LBO. We noted how market prices of RJR debt fell sharply when Ross Johnson's first LBO offer was announced. But again, the losses suffered by bondholders in LBOs are not nearly large enough to explain stockholder gains. For example, Mohan and Chen's estimate of losses to RJR bondholders was at most $575 million[8]—painful to the bondholders, but far below the stockholders' gain.

**Leverage and Incentives** Managers and employees of LBOs work harder and often smarter. They have to generate cash for debt service. Moreover, managers' personal fortunes are riding on the LBO's success. They become owners rather than organization men and women.

It's hard to measure the payoff from better incentives, but there is some evidence of improved operating efficiency in LBOs. Kaplan, who studied 48 MBOs during the 1980s, found average increases in operating income of 24% three years after the buyouts. Ratios of operating income and net cash flow to assets and sales increased dramatically. He observed cutbacks in capital expenditures but not in employment. Kaplan concludes that these "operating changes are due to improved incentives rather than layoffs."[9]

We have reviewed several motives for LBOs. We do not say that all LBOs are good. On the contrary, there have been many mistakes, and even soundly motivated LBOs are risky, as the bankruptcies of a number of highly leveraged transactions have demonstrated. Yet, we do quarrel with those who portray LBOs solely as undertaken by Wall Street barbarians breaking up the traditional strengths of corporate America.

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[5] See E. I. Altman and G. Fanjul, "Defaults and Returns in the High Yield Bond Market: The Year 2003 in Review and Market Outlook," Monograph, Salomon Center, Leonard N. Stern School of Business, New York University, 2004.

[6] There are some tax *costs* to LBOs. For example, selling shareholders realize capital gains and pay taxes that otherwise would be deferred. See L. Stiglin, S. N. Kaplan, and M. C. Jensen, "Effects of LBOs on Tax Revenues of the U.S. Treasury," *Tax Notes* 42 (February 6, 1989), pp. 727–733.

[7] R. J. Ruback, "RJR Nabisco," case study, Harvard Business School, Cambridge, MA, 1989.

[8] Mohan and Chen, 1990. "A Review of the RJR Nabisco Buyout," *Journal of Applied Corporate Finance*, 3(2) pp. 102–108.

[9] S. Kaplan, "The Effects of Management Buyouts on Operating Performance and Value," *Journal of Financial Economics* 24 (October 1989), pp. 217–254. For more recent evidence on changes in employment, see S. J. Davis, J. Haltiwanger, R. S. Jarmin, J. Lerner, and J. Miranda, "Private Equity and Employment," U.S. Census Bureau Center for Economic Studies Paper No. CES-WP-08-07, January 2009.

## Leveraged Restructurings

The essence of a leveraged buyout is of course leverage. So why not take on the leverage and dispense with the buyout? Here is one well-documented success story of a *leveraged restructuring.*[10]

In 1989 Sealed Air was a very profitable company. The problem was that its profits were coming too easily because its main products were protected by patents. When the patents expired, strong competition was inevitable, and the company was not ready for it. The years of relatively easy profits had resulted in too much slack:

> We didn't need to manufacture efficiently; we didn't need to worry about cash. At Sealed Air, capital tended to have limited value attached to it—cash was perceived as being free and abundant.

The company's solution was to borrow the money to pay a $328 million special cash dividend. In one stroke the company's debt increased 10 times. Its book equity went from $162 million to *minus* $161 million. Debt went from 13% of total book assets to 136%. The company hoped that this leveraged restructuring would "disrupt the status quo, promote internal change," and simulate "the pressures of Sealed Air's more competitive future." The shakeup was reinforced by new performance measures and incentives, including increases in stock ownership by employees.

It worked. Sales and operating profits increased steadily without major new capital investments, and net working capital *fell* by half, releasing cash to help service the company's debt. The stock price quadrupled in the five years following the restructuring.

Sealed Air's restructuring was not typical. It is an exemplar chosen with hindsight. It was also undertaken by a successful firm under no outside pressure. But it clearly shows the motive for most leveraged restructurings. They are designed to force mature, successful, but overweight companies to disgorge cash, reduce operating costs, and use assets more efficiently.

## LBOs and Leveraged Restructurings

The financial characteristics of LBOs and leveraged restructurings are similar. The three main characteristics of LBOs are

1. *High debt.* The debt is not intended to be permanent. It is designed to be paid down. The requirement to generate cash for debt service is intended to curb wasteful investment and force improvements in operating efficiency. Of course, this solution only makes sense in the case of companies that are generating lots of cash and have few investment opportunities.
2. *Incentives.* Managers are given a greater stake in the business via stock options or direct ownership of shares.
3. *Private ownership.* The LBO goes private. It is owned by a partnership of private investors who monitor performance and can act right away if something goes awry. But private ownership is not intended to be permanent. The most successful LBOs go public again as soon as debt has been paid down sufficiently and improvements in operating performance have been demonstrated.

Leveraged restructurings share the first two characteristics but continue as public companies.

[10] K. H. Wruck, "Financial Policy as a Catalyst for Organizational Change: Sealed Air's Leveraged Special Dividend," *Journal of Applied Corporate Finance* 7 (Winter 1995), pp. 20–37.

## 32-2 Fusion and Fission in Corporate Finance

Figure 32.1 shows some of AT&T's acquisitions and divestitures. Before 1984, AT&T controlled most of the local and virtually all of the long-distance telephone service in the United States. (Customers used to speak of the ubiquitous "Ma Bell.") Then in 1984 the company accepted an antitrust settlement requiring local telephone services to be spun off to seven new, independent companies. AT&T was left with its long-distance business plus Bell Laboratories, Western Electric (telecommunications manufacturing), and various other assets. As the communications industry became increasingly competitive, AT&T acquired several other businesses, notably in computers, cellular telephone service, and cable television. Some of these acquisitions are shown as the green incoming arrows in Figure 32.1.

AT&T was an unusually active acquirer. It was a giant company trying to respond to rapidly changing technologies and markets. But AT&T was simultaneously *divesting* dozens of other businesses. For example, its credit card operations (the AT&T Universal Card) were sold to Citicorp. AT&T also created several new companies by spinning off parts of its business. For example, in 1996 it spun off Lucent (incorporating Bell Laboratories and Western Electric) and its computer business (NCR). Only six years earlier AT&T had paid $7.5 billion to acquire NCR. These and several other important divestitures are shown as the green outgoing arrows in Figure 32.1.

Figure 32.1 is not the end of AT&T's story. In 2004, AT&T was acquired by Cingular Wireless, which retained the AT&T name. In 2005, that company in turn merged with SBC Communications, Inc., a descendant of Southwestern Bell. In 2006, that company merged with BellSouth. There's not much left of the original AT&T, but the name survives.[11]

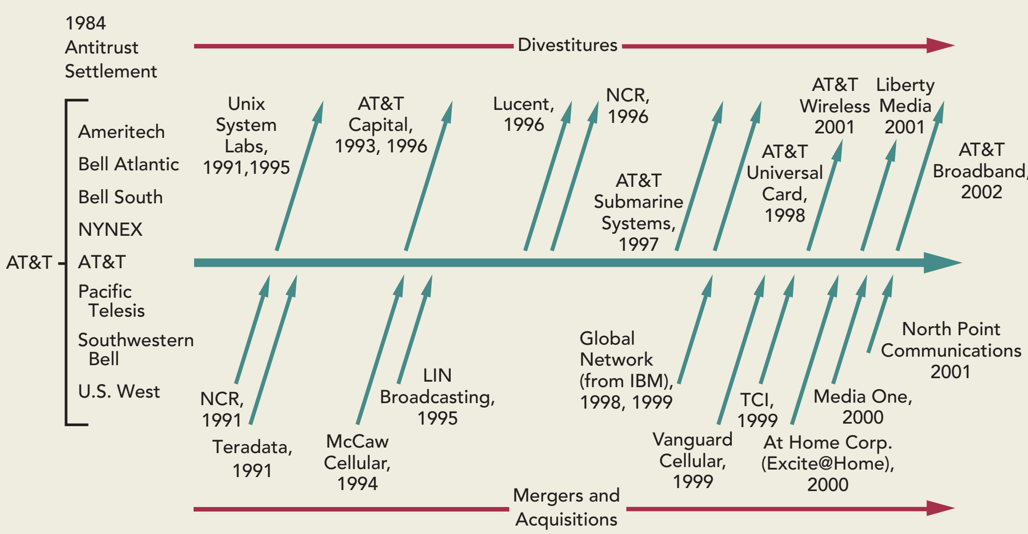


**FIGURE 32.1**

The effects of AT&T's antitrust settlement in 1984, and a few of AT&T's acquisitions and divestitures from 1991 to 2003. Divestitures are shown by the outgoing green arrows. When two years are given, the transaction was completed in two steps.

[11] The merger with BellSouth did not signal the end of the acquisitions. In 2007 AT&T undertook a series of acquisitions to expand its wireless services.

In the market for corporate control, fusion—that is, mergers and acquisitions—gets most of the attention and publicity. But fission—the sale or distribution of assets or operating businesses—can be just as important, as the top half of Figure 32.1 illustrates. In many cases businesses are sold in LBOs or MBOs. But other transactions are common, including spin-offs, carve-outs, divestitures, asset sales, and privatizations. We start with spin-offs.

## Spin-offs

A **spin-off** (or *split-up*) is a new, independent company created by detaching part of a parent company's assets and operations. Shares in the new company are distributed to the parent company's stockholders.[12] For example, in December 2009 Time Warner spun off its investment in AOL. Time Warner's shareholders received shares in the new company and could trade their AOL shares as well as those of the slimmed down Time Warner.[13]

Spin-offs widen investor choice by allowing them to invest in just one part of the business. More important, they can improve incentives for managers. Companies sometimes refer to divisions or lines of business as "poor fits." By spinning these businesses off, management of the parent company can concentrate on its main activity. If the businesses are independent, it is easier to see the value and performance of each and to reward managers by giving them stock or stock options in their company. Also, spin-offs relieve investors of the worry that funds will be siphoned from one business to support unprofitable capital investments in another.

When AT&T announced its planned spin-offs of Lucent and NCR, the chairman commented that the

> three independent corporations will be able to go after the exploding opportunities of the industry faster than they could as parts of a much larger corporation. The three new companies . . . will be free to pursue the best interests of their customers without bumping into each other in the marketplace. They are designed to be fast and focused, with a capital structure suited to their individual industries.

Investors were apparently convinced, for the announcement of the spin-offs added $10 billion to the value of the stock overnight.

AT&T's spin-off of Lucent and NCR was unusual in many respects. But scholars who have studied the topic have found that investors generally greet the announcement of a spin-off as good news.[14] Their enthusiasm appears to be justified, for spin-offs seem to bring about more efficient capital investment decisions by each company and improved operating performance.[15]

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[12] The value of the shares that shareholders receive is taxed as a dividend unless they are given at least 80% of the shares in the new company.

[13] Instead of undertaking a spin-off, some companies have given their shareholders *tracking stock* tied to the performance of particular divisions. For example, in 2000 AT&T distributed a special class of shares tied to the performance of its wireless business. But tracking stocks did not prove popular with investors, and a year later AT&T went whole hog and spun off AT&T Wireless into a separate company.

[14] For example, P. J. Cusatis, J. A. Miles, and J. R. Woolridge, "Restructuring Through Spin-offs: The Stock-Market Evidence," *Journal of Financial Economics* 33 (Summer 1994), pp. 293–311.

[15] See R. Gertner, E. Powers, and D. Scharfstein, "Learning about Internal Capital Markets from Corporate Spin-offs," *Journal of Finance* 57 (December 2003), pp. 2479–2506; L. V. Daley, V. Mehrotra, and R. Sivakumar, "Corporate Focus and Value Creation: Evidence from Spin-offs," *Journal of Financial Economics* 45 (August 1997), pp. 257–281; T. R. Burch and V. Nanda, "Divisional Diversity and the Conglomerate Discount: Evidence from Spin-offs," *Journal of Financial Economics* 70 (October 2003), pp. 69–78; and A. K. Dittmar and A. Shivdasani, "Divestitures and Divisional Investment Policies," *Journal of Finance* 58 (December 2003), pp. 2711–2744. But G. Colak and T. M. Whited argue that apparent increases in value are due to econometric problems rather than actual increases in investment efficiency. See "Spin-offs, Divestitures and Conglomerate Investment," *Review of Economic Studies* 20 (May 2007), pp. 557–595.

## How Palm was Carved and Spun

When 3Com acquired U.S. Robotics in 1997, it also became the owner of Palm, a small start-up business developing handheld computers. It was a lucky purchase, for over the next three years the Palm Pilot came to dominate the market for handheld computers. But as Palm began to take up an increasing amount of management time, 3Com concluded that it needed to return to its knitting and focus on its basic business of selling computer network systems. In 2000 it announced that it would carve out 5% of its holding of Palm through an initial public offering, and then spin off the remaining 95% of Palm shares by giving 3Com shareholders about 1.5 Palm shares for each 3Com share that they owned.

The Palm carve-out occurred at close to the peak of the high-tech boom and got off to a dazzling start. The shares were issued in the IPO at $38 each. On the first day of trading the stock price touched $165 before closing at $95. Therefore, anyone owning a share of 3Com stock could look forward later in the year to receiving about 1.5 shares of Palm worth $1.5 \times 95 = \$142.50$. But apparently 3Com's shareholders were not fully convinced that their newfound wealth was for real, for on the same day 3Com's stock price closed at $82, or more than $60 a share *less* than the market value of the shares in Palm that they were due to receive.*

Three years after 3Com spun off its holding in Palm, Palm itself entered the spin-off business by giving shareholders stock in PalmSource, a subsidiary that was responsible for developing and licensing the Palm™ operating system. The remaining business, renamed palmOne, would focus on making mobile gadgets. The company gave three reasons for its decision to split into two. First, like 3Com's management, Palm's management believed that the company would benefit from clarity of focus and mission. Second, it argued that shareholder value could "be enhanced if investors could evaluate and choose between both businesses separately, thereby attracting new and different investors." Finally, it seemed that Palm's rivals were reluctant to buy software from a company that competed with them in making handheld hardware.

* This difference would seem to present an arbitrage opportunity. An investor who bought 1 share of 3Com and sold short 1.5 shares of Palm would earn a profit of $60 and own 3Com's other assets for free. The difficulty in executing this arbitrage is explored in O. A. Lamont and R. H. Thaler, "Can the Market Add and Subtract? Mispricing in Tech Stock Carve-Outs," *Journal of Political Economy* 111 (April 2003), pp. 227–268.

### Carve-outs

**Carve-outs** are similar to spin-offs, except that shares in the new company are not given to existing shareholders but are sold in a public offering. An example of a recent carve-out was the sale in 2009 by Bristol Myers Squibb of 17% of the shares of Mead Johnson Nutrition. The initial public offering raised $720 million for Bristol Myers.

Most carve-outs leave the parent with majority control of the subsidiary, usually about 80% ownership.[16] This may not reassure investors who are worried about lack of focus or a poor fit, but it does allow the parent to set the manager's compensation based on the performance of the subsidiary's stock price. Sometimes companies carve out a small proportion of the shares to establish the market in the subsidiary and subsequently spin off the remainder of the shares. The nearby box describes how the computer company, Palm, was first carved and then spun.

Perhaps the most enthusiastic carver-outer of the 1980s and 1990s was Thermo Electron, with operations in health care, power generation equipment, instrumentation, environmental protection, and various other areas. By 1997 it had carved out stakes in seven publicly traded subsidiaries, which in turn had carved out 15 further public companies. The 15 were

[16] The parent must retain an 80% interest to consolidate the subsidiary with the parent's tax accounts. Otherwise the subsidiary is taxed as a freestanding corporation.

grandchildren of the ultimate parent, Thermo Electron. The company's management reasoned that the carve-outs would give each company's managers responsibility for their own decisions and expose their actions to the scrutiny of the capital markets. For a while the strategy seemed to work, and Thermo Electron's stock was a star performer. But the complex structure began to lead to inefficiencies, and in 2000 Thermo Electron went into reverse. It reacquired many of the subsidiaries that the company had carved out only a few years earlier, and it spun off several of its progeny, including Viasis Health Care and Kadant Corp., a manufacturer of papermaking and paper-recycling equipment. Then in November 2006 Thermo Electron merged with Fisher Scientific.

## Asset Sales

The simplest way to divest an asset is to sell it. An *asset sale* or *divestiture* means sale of a part of one firm to another. This may consist of an odd factory or warehouse, but sometimes whole divisions are sold. Asset sales are another way of getting rid of "poor fits." Such sales are frequent. For example, one study found that over 30% of assets acquired in a sample of hostile takeovers were subsequently sold.[17]

Maksimovic and Phillips examined a sample of about 50,000 U.S. manufacturing plants each year from 1974 to 1992. About 35,000 plants in the sample changed hands during that period. One-half of the ownership changes were the result of mergers or acquisitions of entire firms, but the other half resulted from asset sales, that is, sale of part or all of a division.[18] Asset sales sometimes raise huge sums of money. For example, in 2009 mining giant Rio Tinto announced that it had sold its potash deposits to the Brazilian company Vale for $850 million. The deal was part of a package of asset sales that raised more than $4.5 billion for Rio Tinto in two years.

Announcements of asset sales are good news for investors in the selling firm and on average the assets are employed more productively after the sale.[19] It appears that asset sales transfer business units to the companies that can manage them most effectively.

## Privatization and Nationalization

A **privatization** is a sale of a government-owned company to private investors. In recent years almost every government in the world seems to have a privatization program. Here are some examples of recent privatization news:

- Pakistan sells a majority stake in Habib Bank (February 2004).
- Japan sells the West Japan Railway Company (March 2004).
- India sells a stake in ONGC, an oil exploration and production company (March 2004).
- Ukraine sells the steel company Kryvorizhstal (June 2004).
- Germany privatizes Postbank, the country's largest retail bank (June 2004).
- Turkey sells a 55% stake in Türk Telecom (November 2005).
- France sells 30% of EDF (Electricité de France; December 2005).
- China sells Industrial and Commercial Bank of China (October 2006).
- Poland announces plans to sell Tauron Polska Energia (July 2009).

[17] See S. Bhagat, A. Shleifer, and R. Vishny, "Hostile Takeovers in the 1980s: The Return to Corporate Specialization," *Brookings Papers on Economic Activity: Microeconomics*, 1990, pp. 1–12.

[18] V. Maksimovic and G. Phillips, "The Market for Corporate Assets: Who Engages in Mergers and Asset Sales and Are There Efficiency Gains?" *Journal of Finance* 56 (December 2001), Table 1, p. 2000.

[19] Ibid.

Most privatizations are more like carve-outs than spin-offs, because shares are sold for cash rather than distributed to the ultimate "shareholders," that is, the citizens of the selling country. But several former Communist countries, including Russia, Poland, and the Czech Republic, privatized by means of vouchers distributed to citizens. The vouchers could be used to bid for shares in the companies that were being privatized. Thus the companies were not sold for cash, but for vouchers.[20]

Privatizations have raised enormous sums for selling governments. China raised $22 billion from the privatization of the Industrial and Commercial Bank of China. The Japanese government's successive sales of its holding of NTT (Nippon Telegraph and Telephone) brought in $100 billion.

The motives for privatization seem to boil down to the following three points:

1. *Increased efficiency.* Through privatization, the enterprise is exposed to the discipline of competition and insulated from political influence on investment and operating decisions. Managers and employees can be given stronger incentives to cut costs and add value.
2. *Share ownership.* Privatizations encourage share ownership. Many privatizations give special terms or allotments to employees or small investors.
3. *Revenue for the government.* Last but not least.

There were fears that privatizations would lead to massive layoffs and unemployment, but that does not appear to be the case. While it is true that privatized companies operate more efficiently and thus reduce employment, they also grow faster as privatized companies, which increases employment. In many cases the net effect on employment is positive.

On other dimensions, the impact of privatization is almost always positive. A review of research on privatization concludes that the firms "almost always become more efficient, more profitable, . . . financially healthier and increase their capital investment spending."[21]

The process of privatization is not a one-way street. It can sometimes go into reverse and publicly owned firms may be taken over by the government. For example, as part of his aim to construct a Socialist republic in Venezuela, Hugo Chavez has nationalized firms in the banking, oil, power, telecom, steel, and cement sectors.

In some other countries temporary nationalization has been a pragmatic last resort for governments rather than part of a long-term strategy. So, when the giant mortgage companies Fannie Mae and Freddie Mac were threatened with bankruptcy in 2008, the U.S. government stepped in and took over the two firms. The following year, GM's bankruptcy resulted in the U.S. Treasury acquiring a 60% holding in the equity of the restructured firm.[22]

## 32-3 Private Equity

The years 2006 and 2007 witnessed an exceptional volume of private-equity deals. For example, in April 2007 one of the largest private-equity firms, Blackstone, won a $39 billion bidding contest for Equity Office Properties, the largest owner of office buildings in the United States. In July it invested nearly $12 billion in Biomet, a manufacturer of medical

[20] There is extensive research on voucher privatizations. See, for example, M. Boyco, A. Shleifer, and R. Vishny, "Voucher Privatizations," *Journal of Financial Economics* 35 (April 1994), pp. 249–266; and R. Aggarwal and J. T. Harper, "Equity Valuation in the Czech Voucher Privatization Auctions," *Financial Management* 29 (Winter 2000), pp. 77–100.

[21] W. L. Megginson and J. M. Netter, "From State to Market: A Survey of Empirical Studies on Privatization," *Journal of Economic Literature* 39 (June 2001), p. 381.

[22] The credit crisis prompted a number of company nationalizations throughout the world, such as that of Northern Rock in the U.K., Hypo Real Estate in Germany, Landsbanki in Iceland, and Anglo-Irish Bank in Ireland.

equipment. Three months later Blackstone announced the $27 billion purchase of Hilton, the hotel operator.

Perhaps the most interesting news of 2007 was DaimlerChrysler's announcement that it was selling an 80% stake in Chrysler to Cerberus Capital Management. Chrysler, one of Detroit's original Big Three automakers, merged into DaimlerChrysler in 1998, but the expected synergies between the Chrysler and Mercedes-Benz product lines were hard to grasp. The Chrysler division had some profitable years, but lost $1.5 billion in 2006. Prospects looked grim. DaimlerChrysler (now Daimler A. G.) *paid* Cerberus $677 million to take Chrysler off its hands. Cerberus assumed about $18 billion in pension and employee health-care liabilities, however, and agreed to invest $6 billion in Chrysler and its finance subsidiary.[23] Two years later, Chrysler filed for bankruptcy, wiping out Cerberus's investment.

Private equity was "hot" in many other countries in 2007. For example, Australia's largest retailers, Coles and Myer, went private. An investment consortium including the Australian Macquarie Bank and the Texas Pacific Group came within a gnat's eyelash of taking over Qantas, Australia's largest airline. (Macquarie also makes private-equity investments around the world, for example, in toll highways and shipping ports.)

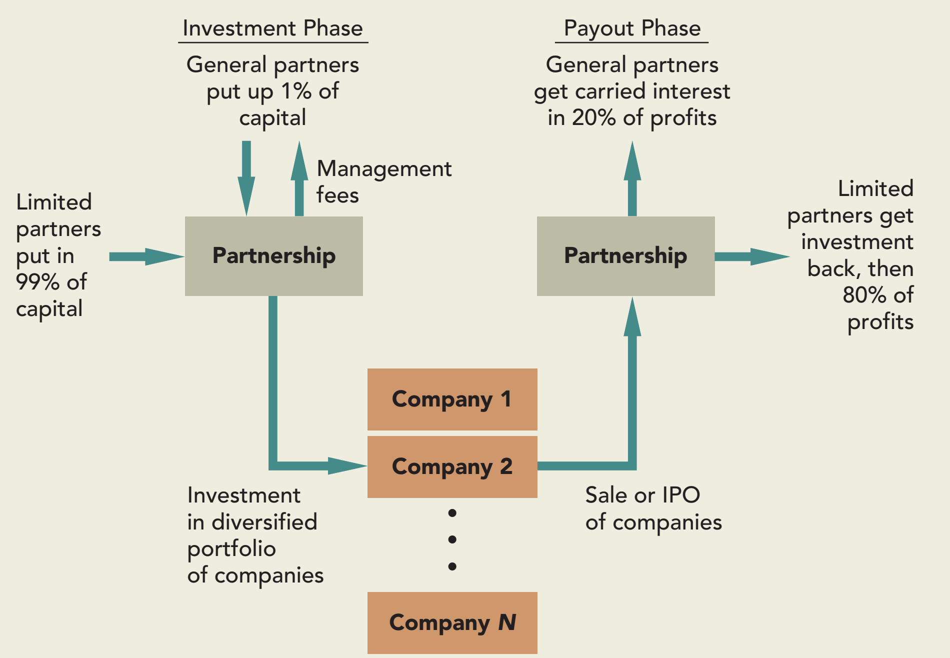
With the onset of the credit crisis the LBO boom of 2007 withered rapidly. Although buyout firms entered 2008 with large amounts of equity, the debt market for leveraged buyouts dried up and the volume of deals fell by more than 70%. (You probably noticed that only one of the buyouts listed in Table 32.1 took place in 2008 or 2009.)

## Private-Equity Partnerships

Figure 32.2 shows how a private-equity investment fund is organized. The fund is a partnership, not a corporation. The *general partner* sets up and manages the partnership. The *limited partners* put up almost all of the money. Limited partners are generally institutional investors, such as pension funds, endowments, and insurance companies. Wealthy

**FIGURE 32.2**

Organization of a typical private-equity partnership. The limited partners, having put up almost all of the money, get first crack at the proceeds from sale or IPO of the portfolio companies. Once their investment is returned, they get 80% of any profits. The general partners, who organize and manage the partnership, get a 20% carried interest in profits.




[23] Cerberus had previously purchased a controlling stake in GMAC, General Motors' finance subsidiary.

individuals may also participate. The limited partners have limited liability, like shareholders in a corporation, but do not participate in management.

Once the partnership is formed, the general partners seek out companies to invest in. Venture capital partnerships look for high-tech startups or adolescent companies that need capital to grow. LBO funds look for mature businesses with ample free cash flow that need restructuring. Some funds specialize in particular industries, for example, biotech, real estate, or energy. However, buyout funds like Blackstone's and Cerberus's look for opportunities almost anywhere.

The partnership agreement has a limited term, which is typically 10 years. The portfolio companies must then be sold and the proceeds distributed. So the general partners cannot reinvest the limited partners' money. Of course, once a fund is proved successful, the general partners can usually go back to the limited partners, or to other institutional investors, and form another one. (We mentioned three of Blackstone's 2007 deals earlier in this section. These buyouts were funded from Blackstone's existing investment partnerships. At the same time it was raising $20 billion for a *new* buyout fund and $10 billion for a new real estate fund.)

The general partners get a management fee, usually 1% or 2% of capital committed,[24] plus a *carried interest* in 20% of any profits earned by the partnership. In other words, the limited partners get paid off first, but then get only 80% of any further returns. The general partners therefore have a call option on 20% of the partnership's total future payoff, with an exercise price set by the limited partners' investment.[25]

You can see some of the advantages of private-equity partnerships:

- Carried interest gives the general partners plenty of upside. They are strongly motivated to earn back the limited partners' investment and deliver a profit.
- Carried interest, because it is a call option, gives the general partners incentives to take risks. Venture capital funds take the risks inherent in start-up companies. Buyout funds amplify business risks with financial leverage.
- There is no separation of ownership and control. The general partners can intervene in the fund's portfolio companies any time performance lags or strategy needs changing.
- There is no free-cash-flow problem: limited partners don't have to worry that cash from a first round of investments will be dribbled away in later rounds. Cash from the first round *must* be distributed to investors.

Private-equity deals have also been helped by low interest rates and easy access to financing.

The foregoing are good reasons why private equity has grown. But some contrarians say that rapid growth has also come from irrational exuberance and speculative excess. These investors stay on the sidelines and wait glumly (but hopefully) for a crash. They may have learned a useful lesson from the returns to private-equity investors in the 1990s. Returns to limited partners were good on average, about matching returns on the stock market. But some types of limited partners, including university endowments, earned systematically superior returns. Other classes of investors fell short. It seems that the late and unsophisticated money ended up in poorly performing funds.[26]

The popularity of private equity has also been linked to the costs and distractions of public ownership, including the costs of dealing with Sarbanes-Oxley and other legal and regulatory requirements. (We discussed Sarbanes-Oxley in Chapter 1.) Many CEOs and

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[24] LBO and buyout funds also extract fees for arranging financing for their takeover transactions.

[25] The structure and compensation of private-equity partnerships are described in A. Metrick and A. Yasuda, "The Economics of Private Equity Funds," *Review of Financial Studies*, forthcoming.

[26] J. Lerner, A. Schoar, and W. Wongsunwai, "Smart Institutions, Foolish Choices: The Limited Partner Performance Puzzle," *Journal of Finance* 62 (April 2007), pp. 731–764.

CFOs feel pressured to meet short-term earnings targets. Perhaps they spend too much time worrying about these targets and about day-to-day changes in stock price. Perhaps going private avoids public investors' "short-termism" and makes it easier to invest for the long run. But recall that for private equity, the long run is the life of the partnership, 8 or 10 years at most. General partners *must* find a way to cash out of the companies in the partnership's portfolio. There are only two ways to cash out: an IPO or a *trade sale* to another company. Many of today's private-equity deals will be future IPOs, thus private-equity investors need public markets. The firms that seek divorce from public shareholders may well have to remarry them later.

## Are Private-Equity Funds Today's Conglomerates?

A *conglomerate* is a firm that diversifies across several unrelated businesses. Is Blackstone a conglomerate? Table 32.2, which lists some of the companies held by Blackstone funds, suggests that it is. Blackstone funds have invested in dozens of industries.

At the start of this chapter, we suggested that private equity today does some of the tasks that public conglomerates used to do. Let's take a brief look at the history of U.S. conglomerates.

The merger boom of the 1960s created more than a dozen sprawling conglomerates. Table 32.3 shows that by the 1970s some of these conglomerates had achieved amazing spans of activity. The largest conglomerate, ITT, was operating in 38 different industries and ranked eighth in sales among U.S. corporations.

Most of these conglomerates were broken up in the 1980s and 1990s. In 1995 ITT, which had already sold or spun off several businesses, split what was left into three separate firms. One acquired ITT's interests in hotels and gambling; the second took over ITT's automotive parts, defense, and electronics businesses, and the third specialized in insurance and financial services.

What advantages were claimed for the conglomerates of the 1960s and 1970s? First, diversification across industries was supposed to stabilize earnings and reduce risk. That's hardly compelling, because shareholders can diversify much more efficiently on their own.

**TABLE 32.2**

The Blackstone Group invests in many different industries. Here are some of its portfolio holdings in 2009.

*Source:* The Blackstone Group, www.blackstone.com.

| Company | Business | Company | Business |
|---|---|---|---|
| Alliant | Insurance | Nielsen | Media, publishing |
| Biomet | Medical equipment | Orangina | Soft drinks |
| Catalent | Pharmaceutical and health services | Pinnacle Foods | Convenience foods |
| Centerparcs | U.K. holiday villages | SunGard | Software |
| Freescale | Semiconductors for telecommunications | TDC | Danish telecom operator |
| Health Markets | Health insurance | Travelport | Travel agent |
| Hilton | Hospitality | United Biscuits | Biscuits, cookies, snacks |
| Michaels | Arts and crafts retailer | Weather Channel | Media |

**TABLE 32.3**

The largest conglomerates of 1979, ranked by sales compared with U.S. industrial corporations. Most of these companies have been broken up.

*Source:* A. Chandler and R. S. Tetlow (eds.), *The Coming of Managerial Capitalism* (Homewood, IL: Richard D. Irwin, Inc., 1985), p. 772. © 1985 Richard D. Irwin. See also J. Baskin and P. J. Miranti, Jr., *A History of Corporate Finance* (Cambridge, U.K.: Cambridge University Press, 1997), ch. 7.

| Sales Rank | Company | Number of Industries |
|---|---|---|
| 8 | International Telephone & Telegraph (ITT) | 38 |
| 15 | Tenneco | 28 |
| 42 | Gulf & Western Industries | 4 |
| 51 | Litton Industries | 19 |
| 66 | LTV | 18 |

Second, a widely diversified firm can operate an *internal capital market.* Free cash flow generated by divisions in mature industries (*cash cows*) can be funneled within the company to those divisions (*stars*) with plenty of profitable growth opportunities. Consequently, there is no need for fast-growing divisions to raise finance from outside investors.

There are some good arguments for internal capital markets. The company's managers probably know more about its investment opportunities than outside investors do, and transaction costs of issuing securities are avoided. Nevertheless, it appears that attempts by conglomerates to allocate capital investment across many unrelated industries were more likely to subtract value than add it. Trouble is, internal capital markets are not really markets but combinations of central planning (by the conglomerate's top management and financial staff) and intracompany bargaining. Divisional capital budgets depend on politics as well as pure economics. Large, profitable divisions with plenty of free cash flow may have the most bargaining power; they may get generous capital budgets while smaller divisions with good growth opportunities are reined in.

**Internal Capital Markets in the Oil Business** Misallocation in internal capital markets is not restricted to pure conglomerates. For example, Lamont found that, when oil prices fell by half in 1986, diversified oil companies cut back capital investment in their *non-oil* divisions. The non-oil divisions were forced to "share the pain," even though the drop in oil prices did not diminish their investment opportunities. *The Wall Street Journal* reported one example:[27]

> Chevron Corp. cut its planned 1986 capital and exploratory budget by about 30% because of the plunge in oil prices. . . . A Chevron spokesman said that the spending cuts would be across the board and that no particular operations will bear the brunt.
>
> About 65% of the $3.5 billion budget will be spent on oil and gas exploration and production—about the same proportion as before the budget revision.
>
> Chevron also will cut spending for refining and marketing, oil and natural gas pipelines, minerals, chemicals, and shipping operations.

Why cut back on capital outlays for minerals, say, or chemicals? Low oil prices are generally good news, not bad, for chemical manufacturing, because oil distillates are an important raw material.

By the way, most of the oil companies in Lamont's sample were large, blue-chip companies. They could have raised additional capital from investors to maintain spending in their non-oil divisions. They chose not to. We do not understand why.

All large companies must allocate capital among divisions or lines of business. Therefore, they all have internal capital markets and must worry about mistakes and misallocations. But the danger probably increases as the company moves from a focus on one, or a few related industries, to unrelated conglomerate diversification. Look again at Table 32.3: how could top management of ITT keep accurate track of investment opportunities in 38 different industries?

Conglomerates face further problems. Their divisions' market values can't be observed independently, and it is difficult to set incentives for divisional managers. This is particularly serious when managers are asked to commit to risky ventures. For example, how would a biotech startup fare as a division of a traditional conglomerate? Would the conglomerate be as patient and risk-tolerant as investors in the stock market? How are the scientists and clinicians doing the biotech R&D rewarded if they succeed? We don't mean to say that high-tech innovation and risk-taking are impossible in public conglomerates, but the difficulties are evident.

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[27] O. Lamont, "Cash Flow and Investment: Evidence from Internal Capital Markets," *Journal of Finance* 52 (March 1997), pp. 83–109. *The Wall Street Journal* quotation appears on pp. 89–90. © 1997 Dow Jones & Company, Inc.

The third argument for traditional conglomerates came from the idea that good managers were fungible; in other words, it was argued that modern management would work as well in the manufacture of auto parts as in running a hotel chain. Thus conglomerates were supposed to add value by removing old-fashioned managers and replacing them with ones trained in the new management science.

There was some truth in this claim. The best of the conglomerates did add value by targeting companies that needed fixing—companies with slack management, surplus assets, or excess cash that was not being invested in positive-NPV projects. These conglomerates targeted the same types of companies that LBO and private-equity funds would target later. The difference is that conglomerates would buy companies, try to improve them, and then manage for the long run. The long-run management was the most difficult part of the game. Conglomerates would buy, fix, and hold. Private equity buys, fixes, and sells. By selling (cashing out), private equity avoids the problems of managing the conglomerate firm and running internal capital markets.[28] You could say that private-equity partnerships are *temporary conglomerates.*

Table 32.4 summarizes a comparison by Baker and Montgomery of the financial structure of a private-equity fund and of a typical public conglomerate. Both are diversified, but the fund's limited partners do not have to worry that free cash flow will be plowed back into unprofitable investments. The fund has no internal capital market. Monitoring and compensation of management also differ. In the fund, each company is run as a separate business. The managers report directly to the owners, the fund's partners. Each company's managers own shares or stock options in that company, not in the fund. Their compensation depends on their firm's market value in a trade sale or IPO.

In a public conglomerate, these businesses would be divisions, not freestanding companies. Ownership of the conglomerate would be dispersed, not concentrated. The divisions would not be valued separately by investors in the stock market, but by the conglomerate's corporate staff, the very people who run the internal capital market. Managers' compensation

| Private-Equity Fund | Public Conglomerate |
|---|---|
| Widely diversified, investment in unrelated industries | Widely diversified, investment in unrelated industries. |
| Limited-life partnership forces sale of portfolio companies. | Public corporations designed to operate divisions for the long run. |
| No financial links or transfers between portfolio companies. | Internal capital market. |
| General partners "do the deal," then monitor; lenders also monitor. | Hierarchy of corporate staff evaluates divisions' plans and performance. |
| Managers' compensation depends on exit value of company. | Divisional managers' compensation depends mostly on earnings—"smaller upside, softer downside." |

**TABLE 32.4** Private-equity fund vs. public conglomerate. Both diversify, investing in a portfolio of unrelated businesses, but their financial structures are otherwise fundamentally different.

*Source:* Adapted from G. Baker and C. Montgomery, "Conglomerates and LBO Associations: A Comparison of Organizational Forms," working paper, Harvard Business School, Cambridge, MA, July 1996. Used by permission of the authors.

[28] Economists have tried to measure whether corporate diversification adds or subtracts value. Berger and Ofek estimate an average conglomerate discount of 12% to 15%. That is, the estimated market value of the whole is 12% to 15% less than the sum of the values of the parts. The chief cause of the discount seems to be overinvestment and misallocation of investment. See P. Berger and E. Ofek, "Diversification's Effect on Firm Value," *Journal of Financial Economics* 37 (January 1995), pp. 39–65. But not everyone is convinced that the conglomerate discount is real. Other researchers have found smaller discounts or pointed out statistical problems that make the discount hard to measure. See, for example, J. M. Campa and S. Kedia, "Explaining the Diversification Discount," *Journal of Finance* 57 (August 2002), pp. 1731–1762; and B. Villalonga, "Diversification Discount or Premium? Evidence from the Business Information Tracking Service," *Journal of Finance* 59 (April 2004), pp. 479–506.

wouldn't depend on divisions' market values because no shares in the divisions would be traded and the conglomerate would not be committed to selling the divisions or spinning them off.

You can see the arguments for focus and against corporate diversification. But we must be careful not to push the arguments too far. For example, GE, a very successful company, operates in a wide range of unrelated industries. Also, in the next chapter we will find that conglomerates, though rare in the U.S., are common, and apparently successful, in many parts of the world.

## 32-4 Bankruptcy

Some firms are forced to reorganize by the onset of financial distress. At this point they need to agree to a reorganization plan with their creditors or file for bankruptcy. We list the largest nonfinancial U.S. bankruptcies in Table 32.5. The credit crunch also ensured a good dose of very large financial bankruptcies. Lehman Brothers tops the list. It failed in September 2008 with assets of $691.1 billion. Two weeks later Washington Mutual went the same way with assets of $327.9 billion.

Bankruptcy proceedings in the United States may be initiated by the creditors, but in the case of public corporations it is usually the firm itself that decides to file. It can choose one of two procedures, which are set out in Chapters 7 and 11 of the 1978 Bankruptcy Reform Act. The purpose of **Chapter 7** is to oversee the firm's death and dismemberment, while **Chapter 11** seeks to nurse the firm back to health.

Most small firms make use of Chapter 7. In this case the bankruptcy judge appoints a trustee, who then closes the firm down and auctions off the assets. The proceeds from the auction are used to pay off the creditors. Secured creditors can recover the value of their collateral. Whatever is left over goes to the unsecured creditors, who take assigned places in a queue. The court and the trustee are first in line. Wages come next, followed by federal and state taxes and debts to some government agencies such as the Pension Benefit Guarantee Corporation. The remaining unsecured creditors mop up any remaining crumbs from the table.[29] Frequently the trustee needs to prevent some creditors from trying to jump the gun and collect on their debts, and sometimes the trustee retrieves property that a creditor has recently seized.

| Company | Bankruptcy Date | Total Assets Prebankruptcy ($ billions) |
|---|---|---|
| WorldCom | July 2002 | 103.9 |
| General Motors | July 2009 | 91.0 |
| Enron | December 2001 | 65.5 |
| Conseco | December 2002 | 61.4 |
| Chrysler | April 2009 | 39.3 |
| Pacific Gas and Electric | April 2001 | 36.2 |
| Texaco | April 1987 | 34.9 |
| Refco | October 2005 | 33.3 |
| Global Crossing | January 2002 | 30.2 |
| Calpine | December 2005 | 27.2 |
| UAL | December 2002 | 25.2 |

**TABLE 32.5**

The largest nonfinancial bankruptcies.

*Source:* New Generation Research, Inc., www.bankruptcydata.com.

[29] On average there isn't much left. See M. J. White, "Survey Evidence on Business Bankruptcy," in *Corporate Bankruptcy*, ed. J. S. Bhandari and L. A. Weiss (Cambridge, U.K.: Cambridge University Press, 1996).

Managers of small firms that are in trouble know that Chapter 7 bankruptcy means the end of the road and, therefore, try to put off filing as long as possible. For this reason, Chapter 7 proceedings are often launched not by the firm but by its creditors.

When large public companies can't pay their debts, they generally attempt to rehabilitate the business. This is in the shareholders' interests; they have nothing to lose if things deteriorate further and everything to gain if the firm recovers. The procedures for rehabilitation are set out in Chapter 11. Most companies find themselves in Chapter 11 because they can't pay their debts. But sometimes companies have filed for Chapter 11 not because they run out of cash, but to deal with burdensome labor contracts or lawsuits. For example, Delphi, the automotive parts manufacturer, filed for bankruptcy in 2005. Delphi's North American operations were running at a loss, partly because of high-cost labor contracts with the United Auto Workers (UAW) and partly because of the terms of its supply contract with GM, its largest customer. Delphi sought the protection of Chapter 11 to restructure its operations and to negotiate better terms with the UAW and GM.

The aim of Chapter 11 is to keep the firm alive and operating while a plan of reorganization is worked out.[30] During this period, other proceedings against the firm are halted, and the company usually continues to be run by its existing management.[31] The responsibility for developing the plan falls on the debtor firm but, if it cannot devise an acceptable plan, the court may invite anyone to do so—for example, a committee of creditors.

The plan goes into effect if it is accepted by the creditors and confirmed by the court. Each *class* of creditors votes separately on the plan. Acceptance requires approval by at least one-half of votes cast in each class, and those voting "aye" must represent two-thirds of the value of the creditors' aggregate claim against the firm. The plan also needs to be approved by two-thirds of the shareholders. Once the creditors and the shareholders have accepted the plan, the court normally approves it, provided that each class of creditors is in favor and that the creditors will be no worse off under the plan than they would be if the firm's assets were liquidated and the proceeds distributed. Under certain conditions the court may confirm a plan even if one or more classes of creditors votes against it,[32] but the rules for a "cram-down" are complicated and we will not attempt to cover them here.

The reorganization plan is basically a statement of who gets what; each class of creditors gives up its claim in exchange for new securities or a mixture of new securities and cash. The problem is to design a new capital structure for the firm that will (1) satisfy the creditors and (2) allow the firm to solve the *business* problems that got the firm into trouble in the first place.[33] Sometimes satisfying these two conditions requires a plan of baroque complexity, involving the creation of a dozen or more new securities.

The Securities and Exchange Commission (SEC) plays a role in many reorganizations, particularly for large, public companies. Its interest is to ensure that all relevant and material information is disclosed to the creditors before they vote on the proposed plan of reorganization.

Chapter 11 proceedings are often successful, and the patient emerges fit and healthy. But in other cases rehabilitation proves impossible, and the assets are liquidated under Chapter 7. Sometimes the firm may emerge from Chapter 11 for a brief period before it is once again submerged by disaster and back in the bankruptcy court. For example, TWA came out of

[30] To keep the firm alive, it may be necessary to continue to use assets that were offered as collateral, but this denies secured creditors access to their collateral. To resolve this problem, the Bankruptcy Reform Act makes it possible for a firm operating under Chapter 11 to keep such assets as long as the creditors who have a claim on them are compensated for any decline in their value. Thus, the firm might make cash payments to the secured creditors to cover economic depreciation of the assets.

[31] Occasionally the court appoints a trustee to manage the firm.

[32] But at least one class of creditors must vote for the plan; otherwise the court cannot approve it.

[33] Although Chapter 11 is designed to keep the firm in business, the reorganization plan often involves the sale or closure of large parts of the business.

Chapter 11 bankruptcy at the end of 1993, was back again less than two years later, and then for a third time in 2001, prompting jokes about "Chapter 22" and "Chapter 33."[34]

## Is Chapter 11 Efficient?

Here is a simple view of the bankruptcy decision: Whenever a payment is due to creditors, management checks the value of the equity. If the value is positive, the firm makes the payment (if necessary, raising the cash by an issue of shares). If the equity is valueless, the firm defaults on its debt and files for bankruptcy. If the assets of the bankrupt firm can be put to better use elsewhere, the firm is liquidated and the proceeds are used to pay off the creditors; otherwise the creditors become the new owners and the firm continues to operate.[35]

In practice, matters are rarely so simple. For example, we observe that firms often petition for bankruptcy even when the equity has a positive value. And firms often continue to operate even when the assets could be used more efficiently elsewhere. The problems in Chapter 11 usually arise because the goal of paying off the creditors conflicts with the goal of maintaining the business as a going concern. We described in Chapter 18 how the assets of Eastern Airlines seeped away in bankruptcy. When the company filed for Chapter 11, its assets were more than sufficient to repay in full its liabilities of $3.7 billion. But the bankruptcy judge was determined to keep Eastern flying. When it finally became clear that Eastern was a terminal case, the assets were sold off and the creditors received less than $.9 billion. The creditors would clearly have been better off if Eastern had been liquidated immediately; the unsuccessful attempt at resuscitation cost the creditors $2.8 billion.[36]

Here are some further reasons that Chapter 11 proceedings do not always achieve an efficient solution:

1. Although the reorganized firm is legally a new entity, it is entitled to the tax-loss carryforwards belonging to the old firm. If the firm is liquidated rather than reorganized, the tax-loss carryforwards disappear. Thus there is a tax incentive to continue operating the firm even when its assets could be sold and put to better use elsewhere.
2. If the firm's assets are sold, it is easy to determine what is available to pay creditors. However, when the company is reorganized, it needs to conserve cash. Therefore, claimants are often paid off with a mixture of cash and securities. This makes it less easy to judge whether they receive a fair shake.
3. Senior creditors who know they are likely to get a raw deal in a reorganization may press for a liquidation. Shareholders and junior creditors prefer a reorganization. They hope that the court will not interpret the creditors' pecking order too strictly and that they will receive consolation prizes when the firm's remaining value is sliced up.
4. Although shareholders and junior creditors are at the bottom of the pecking order, they have a secret weapon—they can play for time. When they use delaying tactics, the junior creditors are betting on a stroke of luck that will rescue their investment. On the other hand, the senior claimants know that time is working against them, so they may be prepared to settle for a lower payoff as part of the price for getting the plan accepted. Also, prolonged bankruptcy cases are costly, as we pointed out in Chapter 18. Senior claimants may see their money seeping into lawyers' pockets and decide to settle quickly.

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[34] One study found that after emerging from Chapter 11, about one in three firms reentered bankruptcy or privately restructured their debt. See E. S. Hotchkiss, "Postbankruptcy Reform and Management Turnover," *Journal of Finance* 50 (March 1995), pp. 3–21.

[35] If there are several classes of creditors in this simplistic model, the junior creditors initially become the owners of the company and are responsible for paying off the senior debt. They now face exactly the same decision as the original owners. If their newly acquired equity is valueless, they will also default and turn over ownership to the next class of creditors.

[36] These estimates of creditor losses are taken from L. A. Weiss and K. H. Wruck, "Information Problems, Conflicts of Interest, and Asset Stripping: Chapter 11's Failure in the Case of Eastern Airlines," *Journal of Financial Economics* 48 (April 1998), pp. 55–97.

But bankruptcy practices do change and in recent years Chapter 11 proceedings have become more creditor-friendly.[37] For example, equity investors and junior debtholders used to find that managers were willing allies in dragging out a settlement, but these days the managers of bankrupt firms often receive a key employee retention plan, which provides them with a large bonus if the reorganization proceeds quickly and a smaller one if the company lingers on in Chapter 11. This has contributed to a reduction in the time spent in bankruptcy from nearly two years before 1990 to about 16 months today.

While a reorganization plan is being drawn up, the company is likely to need additional working capital. It has, therefore, become increasingly common to allow the firm to buy goods on credit and to borrow money (known as *debtor in possession,* or *DIP*, debt). The lenders, who frequently comprise the firm's existing creditors, are liable to insist on stringent conditions and so have considerable influence on the outcome of the bankruptcy proceedings.

As creditors have gained more influence, shareholders of the bankrupt firms have received fewer and fewer crumbs. In recent years the court has faithfully observed the pecking order in about 90% of Chapter 11 settlements.

In 2009 GM and Chrysler both filed for bankruptcy. They were not only two of the largest bankruptcies ever, but they were also extraordinary legal events. With the help of billions of fresh money from the U.S. Treasury, the companies were in and out of bankruptcy court with blinding speed, compared with the normal placid pace of Chapter 11. The U.S. government was deeply involved in the rescue and the financing of New GM and New Chrysler. The nearby box explains some of the financial issues raised by the Chrysler bankruptcy. The GM bankruptcy raised similar issues.

## Workouts

If Chapter 11 reorganizations are not efficient, why don't firms bypass the bankruptcy courts and get together with their creditors to work out a solution? Many firms that are in distress *do* first seek a negotiated settlement, or **workout.** For example, they can seek to delay payment of the debt or negotiate an interest rate holiday. However, shareholders and junior creditors know that senior creditors are anxious to avoid formal bankruptcy proceedings. So they are likely to be tough negotiators, and senior creditors generally need to make concessions to reach agreement.[38] The larger the firm, and the more complicated its capital structure, the less likely it is that everyone will agree to any proposal.

Sometimes the firm does agree to an informal workout with its creditors and then files under Chapter 11 to obtain the approval of the bankruptcy court. Such *prepackaged or prenegotiated bankruptcies* reduce the likelihood of subsequent litigation and allow the firm to gain the special tax advantages of Chapter 11.[39] For example, in 2004 Trump Hotels & Casino Resorts arranged a *prepack* after reaching agreement with its creditors. Since 1980 about 25% of U.S. bankruptcies have been prepackaged or prenegotiated.[40]

## Alternative Bankruptcy Procedures

The United States bankruptcy system is often described as a debtor-friendly system. Its principal focus is on rescuing firms in distress. But this comes at a cost, for there are many instances in which the firm's assets would be better deployed in other uses. Michael Jensen,

[37] For a discussion of these changes see S. T. Bharath, V. Panchapegesan, and I. Werner, "The Changing Nature of Chapter 11," working paper, Ohio State University, October 2007.

[38] Franks and Torous show that creditors make even greater concessions to junior creditors in informal workouts than in Chapter 11. See J. R. Franks and W. N. Torous, "How Shareholders and Creditors Fare in Workouts and Chapter 11 Reorganizations," *Journal of Financial Economics* 35 (May 1994), pp. 13–33.

[39] In a prepackaged bankruptcy the debtor gains agreement to the reorganization plan before the filing. In a prenegotiated bankruptcy the debtor negotiates the terms of the plan only with the principal creditors.

[40] Data from Lynn LoPucki's Bankruptcy Research Database at **http://lopucki.law.ucla.edu**.

## The Controversial Chrysler Bankruptcy

Chrysler was the weakest of the Big Three U.S. auto manufacturers. We have noted its purchase in 2007 by the private-equity fund Cerberus. By 2009, in the midst of the financial crisis and recession, Chrysler was headed for the dustbin unless it could arrange a rescue from the U.S. government. The rescue came *after* Chrysler's bankruptcy, however. Cerberus's stake was wiped out.

Chrysler filed for bankruptcy on April 30, 2009. It owed $6.9 billion to secured lenders, $5.3 billion to trade creditors (parts suppliers, for example), and $10 billion to a Voluntary Employees' Beneficiary Association (VEBA) trust set up to fund health and other benefits promised to retired employees. It also had unfunded pension liabilities, obligations to dealers, and warranty obligations to customers.

Just six weeks later on June 11 the bankruptcy was resolved, when all of Chrysler's assets and operations were sold to a new corporation for $2 billion. The $2 billion gave secured creditors 29 cents on the dollar. Fiat agreed to take over management of New Chrysler and received a 35% equity stake. New Chrysler received $6 billion in fresh loans from the U.S. Treasury and the Canadian government, in addition to $9.5 billion lent earlier. The Treasury and Canadian government also got 8% and 2% equity stakes, respectively.

The secured bondholders were of course unhappy. The court and government did not pause to see if Chrysler was really worth only $2 billion or if a higher value could have been achieved by breaking up the company. But the unsecured creditors must have been unhappier still, right? The sale for $2 billion left nothing to them.

Wrong! The trade creditors got a $5.3 billion debt claim on New Chrysler, 100 cents on the dollar. The unfunded pension liabilities and dealer and warranty obligations were likewise carried over dollar-for-dollar to New Chrysler. The VEBA trust got a $4.6 billion claim and a 55% equity stake.

We noted that junior creditors and stockholders sometimes get small slices of reorganized companies that emerge from bankruptcy. These consolation prizes are referred to as *violations of absolute priority*, because absolute priority pays senior creditors in full before junior creditors or stockholders get anything. But the Chrysler bankruptcy was resolved with *reverse* priority: junior claims were honored and senior claims mostly wiped out.

What this means for U.S. bankruptcy law and practice is not clear. Perhaps Chrysler's 42-day bankruptcy was a one-off deal never to be repeated, except by GM. But now secured investors worry that "junior creditors might leapfrog them if things don't work out."*

* George J. Schultze, quoted in M. Roe and D. Skeel, "Assessing the Chrysler Bankruptcy," **http://ssrn.com/abstract=1426530**. This article reviews the legal issues created by the reverse priority of creditors in the sale to New Chrysler.

a critic of Chapter 11, has argued that "the U.S. bankruptcy code is fundamentally flawed. It is expensive, it exacerbates conflicts of interest among different classes of creditors, and it often takes years to resolve individual cases." Jensen's proposed solution is to require that any bankrupt company be put immediately on the auction block and the proceeds distributed to claimants in accordance with the priority of their claims.[41]

In some countries the bankruptcy system is even more friendly to debtors. For example, in France the primary duties of the bankruptcy court are to keep the firm in business and preserve employment. Only once these duties have been performed does the court have a responsibility to creditors. Creditors have minimal control over the process, and it is the court that decides whether the firm should be liquidated or preserved. If the court

[41] M. C. Jensen, "Corporate Control and the Politics of Finance," *Journal of Applied Corporate Finance* 4 (Summer 1991), pp. 13–33. An ingenious alternative set of bankruptcy procedures is proposed in L. Bebchuk, "A New Approach to Corporate Reorganizations," *Harvard Law Review* 101 (1988), pp. 775–804; and P. Aghion, O. Hart, and J. Moore, "The Economics of Bankruptcy Reform," *Journal of Law, Economics and Organization* 8 (1992), pp. 523–546.

chooses liquidation, it may select a bidder who offers a lower price but better prospects for employment.

The U.K. is just about at the other end of the scale. When a British firm is unable to pay its debts, the control rights pass to the creditors. Most commonly, a designated secured creditor appoints a *receiver,* who assumes direction of the firm, sells sufficient assets to repay the secured creditors, and ensures that any excess funds are used to pay off the other creditors according to the priority of their claims.

Franks and Davydenko, who have examined alternative bankruptcy systems, found that banks responded to these differences in the bankruptcy code by adjusting their lending practices. Nevertheless, as you would expect, lenders recover a smaller proportion of their money in those countries that have a debtor-friendly bankruptcy system. For example, in France the banks recover on average only 47% of the money owed by bankrupt firms, while in the U.K. the corresponding figure is 69%.[42]

Of course, the grass is always greener elsewhere. In the United States and France, critics complain about the costs of trying to save businesses that are no longer viable. By contrast, in countries such as the U.K., bankruptcy laws are blamed for the demise of healthy businesses and Chapter 11 is held up as a model of an efficient bankruptcy system.

[42] S. A. Davydenko and J. R. Franks, "Do Bankruptcy Codes Matter? A Study of Defaults in France, Germany and the U.K.," *Journal of Finance* 63 (2008), pp. 565–608. For descriptions of bankruptcy in Sweden and Finland, see P. Stromberg, "Conflicts of Interest and Market Illiquidity in Bankruptcy Auctions: Theory and Tests," *Journal of Finance* 55 (December 2000), pp. 2641–2692; and S. A. Ravid and S. Sundgren, "The Comparative Efficiency of Small-Firm Bankruptcies: A Study of the U.S. and Finnish Bankruptcy Codes," *Financial Management* 27 (Winter 1998), pp. 28–40.

## SUMMARY

A corporation's structure is not immutable. Companies frequently reorganize by adding new businesses or disposing of existing ones. They may alter their capital structure and they may change their ownership and control. In this chapter we looked at some of the mechanisms by which companies transform themselves.

We started with leveraged buyouts (LBOs). An LBO is a takeover or buyout of a company or division that is financed mostly with debt. The LBO is owned privately, usually by an investment partnership. Debt financing is not the objective of most LBOs; it is a means to an end. Most LBOs are diet deals. The cash requirements for debt service force managers to shed unneeded assets, improve operating efficiency, and forego wasteful expenditure. The managers and employees are given a significant stake in the business, so they have strong incentives to make these improvements.

A leveraged restructuring is in many ways similar to an LBO. In this case the company puts *itself* on a diet. Large amounts of debt are added and the proceeds are paid out to shareholders. The company is forced to generate cash to service the debt, but there is no change in control and the company stays public.

Most investments in LBOs are made by private-equity partnerships. The limited partners, who put up most of the money, are mostly institutional investors, including pension funds, endowments, and insurance companies. The general partners, who organize and manage the funds, receive a management fee and get a carried interest in the fund's profits. We called these partnerships "temporary conglomerates." They are conglomerates because they create a portfolio of companies in unrelated industries. They are temporary because the partnership has a limited life, usually about 10 years. At the end of this period, the partnership's investments must be sold or taken public again in IPOs. Private-equity funds do not buy and hold; they buy, fix, and sell. Investors in the partnership therefore do not have to worry about wasteful reinvestment of free cash flow.

The private-equity market has been growing steadily. In contrast to these temporary conglomerates, public conglomerates have been declining in the United States. In public companies, unrelated diversification seems to destroy value—the whole is worth less than the sum of its parts. There are two possible reasons for this. First, since the value of the parts can't be observed separately, it is harder to set incentives for divisional managers. Second, conglomerates' internal capital markets are inefficient. It is difficult for management to appreciate investment opportunities in many different industries, and internal capital markets are prone to overinvestment and cross-subsidies.

Of course, companies shed assets as well as acquire them. Assets may be divested by spin-offs, carve-outs, or asset sales. In a spin-off the parent firm splits off part of its business into a separate public company and gives its shareholders stock in the company. In a carve-out the parent raises cash by separating off part of its business and selling shares in this business through an IPO. These divestitures are generally good news to investors; it appears that the divisions are moving to better homes, where they can be well managed and more profitable. The same improvements in efficiency and profitability are observed in privatizations, which are spin-offs or carve-outs of businesses owned by governments.

Companies in distress may reorganize by getting together with their creditors to arrange a workout. For example, they may agree to a delay in repayment. If a workout proves impossible, the company needs to file for bankruptcy. Chapter 11 of the Bankruptcy Act, which is used by most large public companies, seeks to reorganize the company and put it back on its feet again. However, the goal of paying off the company's creditors often conflicts with the aim of keeping the business going. As a result, Chapter 11 sometimes allows a firm to continue to operate when its assets could be better used elsewhere and the proceeds used to pay off creditors.

Chapter 11 tends to favor the debtor. But in some other countries the bankruptcy system is designed almost exclusively to recover as much cash as possible for the lenders. While U.S. critics of Chapter 11 complain about the costs of saving businesses that are not worth saving, commentators elsewhere bemoan the fact that their bankruptcy laws are causing the breakup of potentially healthy businesses.

## FURTHER READING

*The following paper provides a general overview of corporate restructuring:*

B. E. Eckbo and K. S. Thorburn, "Corporate Restructurings: Breakups and LBOs," in B. E. Eckbo (ed.), *Handbook of Empirical Corporate Finance* (Amsterdam: Elsevier/North-Holland, 2007), Chapter 16.

*The papers by Kaplan and Stein, and Kaplan and Stromberg, provide evidence on the evolution and performance of LBOs. Jensen, the chief proponent of the free-cash-flow theory of takeovers, gives a spirited and controversial defense of LBOs:*

S. N. Kaplan and J. C. Stein, "The Evolution of Buyout Pricing and Financial Structure (Or What Went Wrong) in the 1980s," *Journal of Applied Corporate Finance* 6 (Spring 1993), pp. 72–88.

S. N. Kaplan and P. Stromberg, "Leveraged Buyouts and Private Equity," *Journal of Economic Perspectives* 23 (2009), pp. 121–146.

M. C. Jensen, "The Eclipse of the Public Corporation," *Harvard Business Review* 67 (September/October 1989), pp. 61–74.

*The Summer 2006 issue of the* Journal of Applied Corporate Finance *includes a panel discussion and several articles on private equity. Privatization is surveyed in:*

W. L. Megginson, *The Financial Economics of Privatization* (Oxford: Oxford University Press, 2005).

*The following books and articles survey the bankruptcy process. Bris, Welch, and Zhu give a detailed comparison of bankrupt firms' experience in Chapter 7 versus Chapter 11.*

E. I. Altman, *Corporate Financial Distress and Bankruptcy: A Complete Guide to Predicting and Avoiding Distress and Profiting from Bankruptcy,* 3rd ed. (New York: John Wiley & Sons, 2005).

E. S. Hotchkiss, K. John, R. M. Mooradian, and K. S. Thorburn, "Bankruptcy and the Resolution of Financial Distress," in B. E. Eckbo (ed.), *Handbook of Empirical Corporate Finance* (Amsterdam: Elsevier/North-Holland, 2007), Chapter 14.

L. Senbet and J. Seward, "Financial Distress, Bankruptcy and Reorganization," in R. A. Jarrow, V. Maksimovic, and W. T. Ziemba (eds.), *North-Holland Handbooks of Operations Research and Management Science: Finance,* vol. 9 (New York: Elsevier, 1995), pp. 921–961.

J. S. Bhandari, L. A. Weiss, and B. E. Adler (eds.), *Corporate Bankruptcy: Economic and Legal Perspectives* (Cambridge, U.K.: Cambridge University Press, 1996).

A. Bris, I. Welch, and N. Zhu, "The Costs of Bankruptcy: Chapter 7 Liquidation versus Chapter 11 Reorganization," *Journal of Finance* 61 (June 2006), pp. 1253–1303.

*Here are several good case studies on topics covered in this chapter:*

B. Burrough and J. Helyar, *Barbarians at the Gate: The Fall of RJR Nabisco* (New York: Harper & Row, 1990).

G. P. Baker, "Beatrice: A Study in the Creation and Destruction of Value," *Journal of Finance* 47 (July 1992), pp. 1081–1120.

K. H. Wruck, "Financial Policy as a Catalyst for Organizational Change: Sealed Air's Leveraged Special Dividend," *Journal of Applied Corporate Finance* 7 (Winter 1995), pp. 20–37.

J. Allen, "Reinventing the Corporation: The Satellite Structure of Thermo Electron," *Journal of Applied Corporate Finance* 11 (Summer 1998), pp. 38–47.

R. Parrino, "Spinoffs and Wealth Transfers: The Marriott Case," *Journal of Financial Economics* 43 (February 1997), pp. 241–274.

C. Eckel, D. Eckel, and V. Singal, "Privatization and Efficiency: Industry Effects of the Sale of British Airways," *Journal of Financial Economics* 43 (February 1997), pp. 275–298.

L. A. Weiss and K. H. Wruck, "Information Problems, Conflicts of Interest, and Asset Stripping: Chapter 11's Failure in the Case of Eastern Airlines," *Journal of Financial Economics* 48 (April 1998), pp. 55–97.

W. Megginson and D. Scannapieco, "The Financial and Economic Lessons of Italy's Privatization Program," *Journal of Applied Corporate Finance* 18 (Summer 2006), pp. 56–65.



## PROBLEM SETS

### BASIC

1. Define the following terms:
   a. LBO
   b. MBO
   c. Spin-off
   d. Carve-out
   e. Asset sale
   f. Privatization
   g. Leveraged restructuring
2. True or false?
   a. One of the first tasks of an LBO's financial manager is to pay down debt.
   b. Once an LBO or MBO goes private, it almost always stays private.

c. Targets for LBOs in the 1980s tended to be profitable companies in mature industries.
d. "Carried interest" refers to the deferral of interest payments on LBO debt.
e. By 2008 new LBO and private-equity transactions were extremely rare.
f. The announcement of a spin-off is generally followed by a sharp fall in the stock price.
g. Privatizations are generally followed by massive layoffs.
h. On average, privatization seems to improve efficiency and add value.

**3.** What are the government's motives in a privatization?

**4.** What *advantages* have been claimed for public conglomerates?

**5.** List the *disadvantages* of traditional U.S. conglomerates.

**6.** Private-equity partnerships have a limited term. What are the advantages of this arrangement?

**7.** What is the difference between Chapter 7 and Chapter 11 bankruptcies?

**8.** True or false?

a. When a company becomes bankrupt, it is usually in the interests of stockholders to seek a liquidation rather than a reorganization.
b. In Chapter 11 a reorganization plan must be presented for approval by each class of creditor.
c. In a reorganization, creditors may be paid off with a mixture of cash and securities.
d. When a company is liquidated, one of the most valuable assets to be sold off is the tax-loss carryforward.

**9.** Explain why equity can sometimes have a positive value even when companies file for bankruptcy.

## INTERMEDIATE

**10.** True, false, or "It depends on . . ."?

a. Carve-out or spin-off of a division improves incentives for the division's managers.
b. Private-equity partnerships have limited lives. The main purpose is to force the general partners to seek out quick payback investments.
c. Managers of private-equity partnerships have an incentive to make risky investments.

**11.** For what kinds of firm would an LBO or MBO transaction *not* be productive?

**12.** Outline the similarities and differences between the RJR Nabisco LBO and the Sealed Air leveraged restructuring. Were the economic motives the same? Were the results the same? Do you think it was an advantage for Sealed Air to remain a public company?

**13.** Examine some recent examples of divestitures. What do you think were the underlying reasons for them? How did investors react to the news?

**14.** Read *Barbarians at the Gate* (Further Reading). What agency costs can you identify? (*Hint:* See Chapter 12.) Do you think the LBO was well-designed to reduce these costs?

**15.** Explain the structure of a private-equity partnership. Pay particular attention to incentives and compensation. What types of investment were such partnerships designed to make?

**16.** We described carried interest as an option. What kind of option? How does this option change incentives in a private-equity partnership? Can you think of circumstances where these incentive changes would be perverse, that is, potentially value-destroying? Explain.

**17.** "Privatization appears to bring efficiency gains because public companies are better able to reduce agency costs." Why do you think this may (or may not) be true?

**18.** We described several problems with Chapter 11 bankruptcy. Which of these problems could be mitigated by negotiating a prepackaged bankruptcy?