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Barbarians at the Gate or Turnaround Gurus? Private Equity and the Rise of the LBO

There's a key difference between private equity firms and the businesses that were America's original industrial cornerstones . . . . Everyone had a stake in the success of those old businesses, which spread prosperity by putting people to work. But even private equity's most enthusiastic adherents have difficulty explaining its benefit to society . . . . American workers—not to mention their families and communities—simply don't enter into the equation.

— Matt Taibbi, *The Rolling Stone*, 2012[1]

When you do private equity well, you're making companies more efficient and helping them grow and become more profitable. That success means our investors—such as public pension funds—benefit, which contributes to the economic wealth of society.

— David Rubenstein, co-founder of the Carlyle Group, 2012[2]

In the 1980s, firms specializing in leveraged buyouts (LBOs)—a type of acquisition that utilized a considerable share of debt financing to buy underperforming companies or divisions, turn them around, and sell them for a profit—grew in size and significance. Such private equity (PE) firms generated their revenues both from the buyout investments themselves—splitting dividends and exit proceeds with their outside investors (limited partners, or LPs)—and from fees paid directly to the firms by LPs and portfolio companies.

While the two key structural ingredients in the modern PE buyout fund—the LBO and the limited partnership—both had long histories, they first came together in the 1980s through a constellation of supply- and demand-side factors with far-reaching implications. Over a decade of fervent LBO activity, these forces began to redefine the role of the manager in American business and to make the concept of shareholder value the focal point in the market for corporate control.

Between 1980 and 1988, buyout activity increased from less than $1 billion annually to over $60 billion.[3] But from the start, controversy surrounded the societal benefits and costs of turnaround and buyout investments. LBOs created unprecedented value by reconfiguring capital structures, but for whom did they create that value? Were PE firms fee-extracting parasites or turnaround artists who encouraged lackluster companies and industries to use their assets more productively? Was it possible to be both?

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A Century of Mergers and Acquisitions

Throughout its modern history, the U.S. experienced periodic waves of merger activity. The first of these waves occurred between 1898 and 1903, in the wake of two severe financial panics in the 1890s. Mergers in this first wave tended to be horizontal, meaning that companies acquired their direct competitors. Three-quarters of companies acquired between 1898 and 1903 entered into consolidations of five or more firms from the same industry.[4] As they did, big businesses increasingly came to dominate national markets. One historian noted that during this merger wave, "more than 1,800 firms disappeared into consolidations, many of which acquired substantial shares of the markets in which they operated."[5] A second wave, which took place in the aftermath of World War I, also consisted mostly of horizontal acquisitions. In this wave, however, buyers tended to acquire businesses in complementary or allied industries, rather than direct competitors.[6]

The 1960s brought a third merger wave, characterized by conglomerate mergers—friendly stock-based buyouts of companies involved in a different industry than the buyer.[7] Many analysts argued that this conglomerate boom resulted from two factors: the Celler-Dekefauver Act passed by U.S. Congress in 1950, making it more difficult for firms to acquire their suppliers or distributors; and a high level of anti-trust regulation.[8,9]

Through conglomerate mergers, many companies built large, increasingly unwieldy portfolios of products—some complementary, some not. Conglomerate mergers offered distinct advantages during a volatile economic decade. They allowed companies to pool capital, management, and other assets—which, according to one economist, could "increase the value and potential of both the acquiring and acquired companies."[10] They also, however, carried the distinct risk of loss of focus. Between 1959 and 1969, the proportion of companies listed on the *Fortune* 500 consisting of only a single business unit fell from 23% to 15%.[11] Meanwhile, the proportion of companies that consisted of two or more "unrelated" businesses without a single one predominating rose from 7% to 19%.[12] Many analysts considered the conglomerate boom the immediate precursor to the fourth merger wave—the era of PE—two decades later.[13] However, PE had two key ingredients that the conglomerate boom lacked: the LBO and the limited partnership.

The Leveraged Buyout

Leveraged buyout (LBO) referred to an acquisition financed mostly with debt. The term was invented in the late 1970s, but the practice it described was older. Some scholars traced the LBO's origins to 1902, when financier John Pierpont (J.P.) Morgan engineered the merger of several shipping firms into the International Mercantile Marine Company, financing the deal with debt.[14] Fifteen years later, Henry Ford reclaimed his publicly traded Ford Motor Company with a debt-financed transaction, perhaps the first example of a "take private" LBO.[15]

LBOs would grow in size and frequency over the following decades. In 1955 came the record-breaking acquisition of the Waterman Steamship Corporation by McLean Industries, financed by a $42 million loan, half of which McLean paid off right away using Waterman's cash and assets.[16] By the late 1950s, LBOs had become a small cottage industry, led by two basic types of players: activist investment banks like Warren Buffett's Berkshire Hathaway, and investment branches of large (often conglomerate) corporations like Victor Posner's DWG Corporation.[17] The LBO field featured a variety of investment approaches and attitudes (from the genteel Buffett's friendly takeovers to the ruthless Posner's hostile ones). But even so, LBOs remained limited in their reach. Per one analysis:

> The vast majority [of these buyouts] were far less glamorous affairs than the Ford or Morgan transactions, often involving small family businesses that were undergoing generational transformations. Small investor groups would purchase shares of the business, often with a small slice of their own equity and the remainder borrowed from banks and insurers. When the business was later sold at a premium, the heavy leverage would mean that the profits of the equity-holders were multiplied manyfold.[18]

Despite the small size of most 1950s and 1960s LBO deals, the incentive that recapitalization provided acquirers—to improve management at the acquired company to make interest payments and realize favorable returns—became foundational. Two decades later, it would become a widely-recognized principle in the industry. But before the nascent LBO industry could scale, it needed a more coherent organizational structure to help raise large, long-term pools of capital. That structure would be the limited partnership.

The Limited Partnership Investment Fund

The use of limited partnerships as investment vehicles had a long history in the U.S. stretching back to 1822 when the state of New York introduced the first laws permitting them.[19] In the 20th century, the limited partnership became a conduit for the venture capital (VC) industry to finance promising entrepreneurial startups. The 1946 founding of the American Research and Development Corporation (ARD) in Boston, Massachusetts, was a pivotal moment in the development of this industry. ARD was founded by a group of New England business leaders "with the express goal of exploiting the discoveries developed in New England's universities and research laboratories, which otherwise might languish for lack of capital."[20] George Doriot, a Harvard Business School professor, became president of ARD, organizing the firm not as a limited partnership but as a closed-end fund with tradeable shares. To Doriot's disappointment, however, the firm struggled early on to raise capital. He lamented: "Bankers, investors, brokers, etc. . . . have come to the conclusion that creative venture capital was a fanciful idea . . . which should be mostly discarded on account of the fact that it cannot be made to pay very quickly."[21] Wall Street insiders, assented one observer, "viewed ARD as a freak philanthropic enterprise dreamed up by a strange mélange of Harvard professors and State Street financiers."[22]

But in the fullness of time, ARD's investments outperformed skeptics' expectations, with annualized returns of 14.7% between 1946 and 1971, compared with 12.8% annualized returns for the Dow Jones Industrial Average.[23] Much of this success came from one of ARD's best investments, a minicomputer company called the Digital Equipment Corporation, which earned investors $355 million in 15 years on $70,000 invested.[24] Partly inspired by ARD's example, other VC funds began to form, some of which pioneered new methods of attracting long-term capital.

Draper, Gaither & Anderson (DGA), founded in Palo Alto, California, in 1959, introduced a limited partnership model, where the VC firm created a separate entity whose general partners managed the investments with outside limited partners (LPs) joining as investors. This model allowed VCs to avoid fickle short-term investors in public markets by limiting investment to LPs that could survive long-term illiquidity. From the firm perspective, the limited partnership had several advantages over ARD's publicly traded structure. By requiring LPs to commit all the required capital up front, it provided stability and allowed for large capital pools to be invested in various target companies. The model also had advantages for the LPs. It assuaged their concerns about investments becoming *too* long-term (a common complaint from ARD's investors) by specifying a deadline for the fund to exit its investments (typically 10 years).[25] Limited partnerships also allowed for profit sharing (and therefore an alignment of incentives) between LPs and fund managers and, by definition, protected LPs from liability exceeding the value of their investment. Over the next two decades, DGA's model would become the VC industry standard.

The 1980s: Enabling Conditions for Private Equity

By the dawn of the 1980s, the LBO and the LP were both well-established investment tools, but they had not yet come together. That was about to change. With a ready supply of debt and equity financing, a deregulated legal environment, and an acute need for management within many ailing public companies, the 1980s created a conducive environment for the proliferation of the LBO.

New Debt Financing: Junk Bonds

A leading factor in the increased supply of debt financing during the 1980s was the high-yield or "junk" bond market. Companies with less-than-stellar credit ratings (whether due to young age or financial stress) tended to raise money by issuing bonds with high interest rates. These bonds could earn a buyer more money than lower-interest "investment grade" bonds issued by companies with better credit ratings, but they carried a higher risk of default. By 1980, banking orthodoxy had turned so strongly against junk bonds that, according to one analyst, companies that issued them "were effectively shut out of the capital market."[26]

Around that time, a group of bankers led by Michael Milken of the firm Drexel Burnham Lambert (Drexel) perceived an untapped market opportunity. Milken believed that junk bonds were not as risky as analysts made them out to be. When used properly, he contended, junks bonds could help issuers get their companies off the ground while bringing buyers huge returns in the process.[27] Throughout the 1980s, Drexel devoted itself to helping undercapitalized companies issue and sell junk bonds. One of the bonds' most common usages was raising capital for "take-private" LBOs, where the bonds—issued by the target company—were frequently purchased by the buyout fund's investors. Between 1979 and 1989, the junk bond market grew from $10 billion to $189 billion.[28] As more junk bonds were issued, default rates fell from 25% to less than 10%, with yields averaging over 14%.[29,30] The junk bond boom, immortalized by the fictional investment bank Pierce & Pierce in Tom Wolfe's 1987 novel *The Bonfire of the Vanities,* lasted until the bond market crashed in 1989.

New Equity Financing and Capital Commitments: Pension Funds

Junk bonds fueled the supply of debt financing for LBOs, but the 1980s brought new equity financing as well, mostly in the form of pension funds. These funds, which existed in private businesses as well as federal, state, and local governments, collected contributions from employers and employees throughout employees' careers and then paid out a pension after they retired. Between 1960 and 1990, total assets under management by pension funds in the U.S. grew from $300 billion to $4.6 trillion.[31]

Historically, pension funds invested only in stable, fixed-income vehicles such as investment-grade bonds. In 1962, less than 5% of the capital held by private pension funds in the U.S. was invested in equity or alternative vehicles. During the 1960s, however, fund administrators began to realize how much more could be made in equity investing. By 1972, almost 30% of pension funds were invested in equity and alternative vehicles, albeit low-risk ones.[32]

High-risk equity investing was constrained until 1979, when the U.S. Department of Labor rolled back the "prudent man" rule, in place since 1830, which had been understood to forbid retirement fund fiduciaries from engaging in high-risk investing.[33] As a result of the rollback, the proportion of pension fund capital invested in equity or committed to alternative investment vehicles rose to almost 50% by 1992.[34] A large portion of these investments were in PE funds specializing in LBOs.[35]

Regulatory and Tax Advantages

LBOs, particularly if carried out through LPs, also benefitted from several tax and regulatory loopholes that increased the funds' potential for independence and profitability.

Regulatory Advantages[36] All investment companies were regulated by the 1940 Investment Companies Act, which controlled the composition of investment company boards, required regular filings with the Securities and Exchange Commission (SEC), and restricted both the leverage firms could use and the lengths of management contracts. These restrictions multiplied the compliance and regulatory concerns associated with managing a large, diversified investment company. However, the law offered two loopholes for companies to avoid these regulations. The first (the 3(c)(1) exception) allowed private investment companies with fewer than 100 shareholders to escape most of the law's restrictions. The second (the 3(c)(7) exception) allowed private investment firms with shareholders who all had total investments exceeding a threshold amount to escape restriction, regardless of the number of investors. Both these loopholes fit well with the LP model developed in the VC industry in the 1960s.

Tax Advantages[37] Observers also identified several ways in which the U.S. Tax Code favored debt-heavy LBOs. First, loan interest was tax-deductible. Second, the tax code allowed acquirers to determine the depreciation basis of target companies' assets, allowing them to set up depreciation schemes with favorable tax implications (though that window would be closed slightly by new legislative restrictions in 1986). Third, any dividends paid out during an acquisition (provided that the acquiring company acquired at least 80% of voting and nonvoting stock) were 100% tax-deductible. Fourth, proceeds from LBO exits tended to receive favorable capital gains tax treatment.

Public Companies and their Discontents[38]

These auspicious supply-side conditions for debt-financed transactions coincided with mounting skepticism of the public company—the favored structure for big businesses since the early 20th century.

One definitive expression of this 1980s skepticism was HBS Professor Michael C. Jensen's article "The Eclipse of the Public Corporation," published in the *Harvard Business Review.* In the article, Jensen argued that public companies suffered from an incentive misalignment between shareholders and managers. He wrote that in order for any company "to operate efficiently and maximize value, free cash flow must be distributed to shareholders rather than retained."[39] Jensen found "few mechanisms" in public companies "to compel distribution."[40] Instead, executives used free cash to lard their companies in ways that increased scale, scope, or prestige without adding value. Jensen noted that in public companies, executive compensation correlated more to company size than value created.

One example Jensen offered was Ford Motor Company, which "sits on nearly $15 billion in cash and marketable securities in an industry with excess capacity. Ford's management has been deliberating about acquiring financial service companies, aerospace companies, or making some other multi-billion-dollar diversification move—rather than deliberating about effectively distributing Ford's excess cash to its owners so they can decide how to reinvest it."[41] Ford's practices were hardly unique. When Jensen was writing (several years into the PE boom), the 1,000 largest public companies disbursed $108 billion in dividends and $51 billion in share repurchases out of $1.6 trillion in profits.[42]

Anatomy of a Private Equity Fund[43]

In the 1980s, widespread anxieties about public corporations would combine with increased access to equity and debt financing and legal and tax loopholes to fuel the growth of PE. Though there would be many PE firms, each with their own distinct investing styles, the fund structure and investing process would become standard throughout the industry:

Fund Structure

PE firms managed their investments through subsidiary "funds," which operated as limited partnerships. In the tradition of VC funds like DGA, this meant that the actual PE company (e.g., Bain Capital) was not liable for the fund's activities (e.g., Bain Capital Fund II). The firm appointed its own employees to manage the fund as general partners (GPs). GPs were expected to personally contribute 1%-3% of the total equity of a PE fund, though in some funds, they contributed far more. The remainder of each fund's capital came in small part from the PE firm and in large part from LPs. LPs might include public institutional investors (e.g., pension funds), private institutional investors (e.g., university endowments), or wealthy individuals.[44] LPs did not have managerial responsibilities and were liable only for the total value of their own investment. While LPs in a successful PE fund stood to gain substantial returns, their investments remained illiquid for several years. High minimum investment thresholds ensured that a small number of LPs were involved in each fund, thus taking advantage of the regulatory loopholes discussed earlier.

Investing

The process of finding investors typically took a year or two, after which the life of a fund would officially begin, and GPs would begin investing in buyouts. At one representative PE company, deals were accomplished with an average of 75% debt financing and 25% fund equity.[45] The debt would typically be secured using the target company's assets, and paid off, where possible, using the target company's cash or other liquid assets.[46] Over several years, GPs would assemble a diverse portfolio of investments and make any managerial changes to their portfolio companies necessary to sell them for a profit. Throughout the life of the investment, GPs sat on portfolio companies' boards and participated in decisions on corporate strategy, hiring, governance, and mergers and acquisitions. While executives from before the LBO often remained at the company, they were closely supervised.

Profit Sharing and Fees

After an investment period, which depending on the target company, could last anywhere from a few months to a decade, the fund would exit and realize its investment value.[47] Investment profits were split between the firm, GPs, and LPs. The predetermined percentage of profits due to the firm—the carried interest rate or "carry," was customarily 20%. After the carry was deducted, the next disbursements would go to LPs, until LPs' returns cleared a minimum "hurdle" return rate, customarily set at about 8%. Once LPs received a share of the profits up to the hurdle rate, a "catch up" provision allowed GPs to claim an additional share of the net profits.[48]

Over the life of a fund, LPs were typically subjected to annual management fees amounting to 1%-2% of the LPs' committed capital per year. Firms with excellent track records could command higher fees, since LPs could expect higher returns later on. Firms also charged management fees to portfolio companies themselves, with additional fees for brokering acquisitions (including the buyout itself)—the logic being that without the PE firm's guidance and governance, value could not be realized.

In all, PE funds typically lasted around 10 years following fundraising, with up to two one-year extensions at the discretion of the GPs, and further extensions with the consent of the LPs.[49]

The Golden Decade of Private Equity: Two Cases

KKR

The PE LBO model owed much of its popularity to a trio of young bankers from the investment bank Bear Stearns: Jerome Kohlberg (MBA ’47), Henry Kravis, and George Roberts. In 1965, Kohlberg, Kravis, and Roberts piloted a form of LBO transaction geared toward helping small- and mid-sized family businesses exit their investments or pass their shares on to future generations without paying high inheritance taxes. One writer described the dilemma such small businesses faced:

> In many cases, the inheritance tax would force a sale of the company and eat up an inordinate share of any gains on the disposition. The only two other choices were thought to be to sell the business, either on the public markets or to a more sizable and willing corporation. In both cases, many of these companies were either unsuited to go public or unable to find a corporate buyer. The owner would also lose control of the company he had built from scratch, a horrifying prospect.[50]

Kohlberg, Kravis, and Roberts conducted their first family business LBO in 1965, securing a $9.5 million majority stake in family dental supply company Stern Metals, paying $500,000, and financing the rest with debt.[51] The family continued managing the business for four years before selling it in an IPO, netting $4 million.[52] Over the next several years, the trio engaged in several similar transactions. They then expanded their specialized practice to include “conglomerate divestiture” LBOs, where they took over unwanted, underperforming subsidiaries from 1960s conglomerates.[53]

Their momentum was stifled, however, by Bear Stearns’s refusal to offer institutional support for their venture. This meant that to raise large funds, they had to find individual investors to back each transaction. In 1976, Kohlberg, Kravis, and Roberts took the idea of a limited partnership fund-based model to Bear Stearns leadership, asking if they could build a new division of the bank on this basis. Bear Stearns declined, and the trio left the bank to build their own eponymous firm: KKR.[54]

In 1978, KKR began raising its first buyout fund, attracting such investors as Allstate, Teachers Insurance (a pension fund), and Citicorp (see **Exhibit 1**).[55] KKR’s first fund aimed toward something bigger than family businesses or conglomerate divestitures: turning around struggling public companies. In 1979, KKR used its first fund to conduct the largest LBO in history to that point: New York Stock Exchange-listed Houdaille Industries, for $380 million (87% of which was debt).[56] Over the next few years, KKR would conduct ever-larger deals by doubling down on its newfound capital streams in pension funds and commercial banks. In KKR’s second, third, fourth, and fifth funds, commercial banks contributed 30% of equity. By 1987, pension funds would be contributing 53%.[57]

KKR’s success attracted competitors, and by the early 1980s multiple firms were in the market for underperforming companies. One of KKR’s most determined competitors was financier Joseph Forstmann’s firm Forstmann Little & Company, which conducted the $512 million 1984 acquisition of Dr. Pepper.[58] In the aftermath of Dr. Pepper, KKR CEO Kravis and Forstmann—who often criticized KKR’s high-debt LBOs and use of junk bonds—developed a personal rivalry that verged on enmity.[59]

In 1984, KKR took on a new role, that of corporate raider, when it bought Fortune 500 food distributor Beatrice Foods. Beatrice was not only KKR’s first hostile takeover (meaning that KKR made its offer for Beatrice without the knowledge of Beatrice's management), but the first time KKR substituted its own managers for a target company's.[60] For this transaction, like almost all KKR deals, the debt portion was funded with junk bonds. In the words of one observer, "by the mid-1980s, with few exceptions [PE firms] began to uniformly resort to Milken and his junk debt to finance their acquisitions; Milken's annual high-yield debt conference became known as the predator's ball."[61] As Milken facilitated more junk bond issues, PE became so overfinanced that firms began competing against one another for LBOs in brutal bidding wars. KKR won an outsized share of these wars (see **Exhibits 2** and **3**).[62] The most contentious—an episode which came to symbolize for critics the excesses of 1980s PE—was the 1988 bidding war for RJR Nabisco.

RJR Nabisco RJR Nabisco (RJR) was an entity created in 1985 when the world's second largest cigarette maker, R.J. Reynolds, merged with snack company Nabisco. In the three years following the merger, the Winston-Salem, North Carolina-based company struggled, and its stock price had stagnated, leaving management open to a buyout.[63] RJR Nabisco's own CEO F. Ross Johnson, together with eight fellow executives in the management group, made the first offer to buy the company: $75 a share ($20 above market value).[64] As RJR's board considered Johnson's offer, they received a second offer, from KKR: $90 a share (see **Exhibit A-1**).[65] Over the following weeks, several other banks and conglomerates joined the bidding, drawn by RJR's $2 billion annual cigarette revenues. RJR received bids from Goldman Sachs, Procter & Gamble, the Ralston Purina Company, and Castle & Cooke.[66] But as the bids rose, the contest whittled down to just two competitors: the management group and KKR.

Unexpectedly, Kravis's rival Forstmann declined to make a bid. In late 1988, Forstmann delivered a series of (in the words of one journalist) "tiresome jeremiads" warning that RJR's valuation was getting so high that it "just didn't make financial sense."[67] RJR, Forstmann predicted, would have to issue too much debt to fund the purchase, creating enormous risk and distracting from its core business.[68] Many, even at his own firm, questioned Forstmann's judgment; a banker allegedly responded to one of his lectures on debt irresponsibility by asking "What are you, a priest?"[69]

In the end, KKR won the bidding war, offering $109 a share—$25 billion total—making the buyout by far the largest ever at the time (refer to **Exhibit 2**).[70] Fees associated with the buyout totaled $784 million with KKR capturing an investment banking fee of $75 million (see **Exhibit 4**).[71]

Following the acquisition, Johnson left RJR with $50 million severance, and Kravis brought in Lou Gerstner, formerly of American Express, as CEO. When Gerstner failed to reverse RJR's fortunes after two years, he was replaced by ConAgra CEO Charles Harper.[72] According to one observer, these two "curious" CEO selections "were not only unschooled in tobacco but uncomfortable with it."[73]

But RJR had a bigger problem than tepid leadership: lack of free cash to respond to competition. When KKR acquired the company, RJR's market share was a close second to Philip Morris in the cigarette category (they were separated by eight percentage points).[74] But shortly after the LBO, Philip Morris started a massive marketing campaign featuring its iconic Marlboro Man and negotiated new favorable deals with wholesalers. RJR, which could not afford aggressive marketing due to debt repayments, steadily hemorrhaged market share. By 1991, the market share gap between the two companies had grown to 16 percentage points.[75] Two years later, Philip Morris initiated a price war, cutting cigarette prices by 20%, aware that RJR's depleted financial resources would render it unable to follow suit. RJR was also left ill-equipped to deal with the bevy of tobacco industry lawsuits that legacy companies like itself and Philip Morris would face through the decade.[76]

In order to make interest payments, KKR began raising product prices and cutting staff. By the beginning of 1990, 2,600 RJR employees had been laid off and the price of Ritz Crackers (a core product on the Nabisco side) had risen by 30%.[77] KKR also sold several divisions of RJR, including its Del Monte fresh and canned fruit businesses, and got rid of heavily compensated executives and some of the leftover accoutrements of Johnson's lavish lifestyle—a dozen company-owned houses and seven jets.[78]

By 1991, KKR's leaders were looking for an exit. That year, they brought 60% of RJR to an IPO.[79] In 1995, they exited RJR entirely, exchanging their remaining shares for shares in dairy and industrial product conglomerate Borden. When KKR exited Borden in 2004, it booked a $730 million loss on the combined RJR/Borden investment.[80] KKR's 1987 Fund, however, still offered investors an 8.8% net internal rate of return (IRR) (refer to **Exhibit 1**). That compared to a 9.6% annualized return on the Dow Jones Industrial Average over the same period or a 12.5% annualized return on the Dow Jones with dividends reinvested.[81]

RJR was unable to escape the consequences of the LBO so easily. When KKR exited in 1995, RJR's value fell 50%.[82] That same year, RJR hired a major attorney as CEO, as cigarette revenues stagnated and the company turned its attention to navigating lawsuits. RJR finished paying off its LBO debt in 1999, mostly by selling parts of the business.[83] It sold its international tobacco division to Japan Tobacco International, and sold Nabisco to Kraft (owned by Philip Morris). All that was left was its original U.S. tobacco business, R.J. Reynolds. Wrote one observer in 2003: "When the company recently announced it would slash its workforce by 40% and henceforth promote just two brands (Camel and Salem), it was finally acknowledging that it may be in the same condition as some of its best customers: terminal."[84]

RJR Nabisco sent shockwaves through the PE market that were more immediate than RJR's decline. Partly because the deal ate up so much investment capacity, the PE market dried up in 1988. Brian Burrough, co-author of *Barbarians at the Gate,* a history of the RJR LBO, eulogized: "It was the deal that was too big, too loud, too out of control. It was the one event that more than any other . . . ended the Roaring 80's."[85] Other factors in the PE crash of 1988 were a nationwide recession, tighter credit markets, and a savings and loan crisis that made it harder for PE firms to find buyers for debt.[86] In one 1989 example, investment bank First Boston Co., which had recently bought out the Ohio Mattress Company, cast around desperately to refinance $100 million in LBO debt, and was only saved from bankruptcy by a bailout from Credit Suisse.[87] Symbolic of the PE crash were the jailing of Michael Milken in 1989 for illegal securities transactions and the dissolution of his firm Drexel Burnham, whose junk bonds had financed most of KKR's LBOs.[88] The PE market did not turn around until 1993.

Bain Capital

While RJR Nabisco seemed to demonstrate the perils of big PE, the industry had already grown to include a variety of different investment approaches. Some, while employing the same basic fund structure, provided an alternative to KKR's bigger-is-better strategy, specializing in more modest deals that sometimes blurred the lines between VC and PE. One example of such a firm was Bain Capital.

Bain Capital was an offshoot of the Boston-based Bain Consulting Group, founded by Bill Bain in 1973. In the firm's first decade, Bain's consultants established a reputation for conscientiousness. As one observer put it: "Bainies, as they were known, became deeply involved with the companies they advised, learning everything about their businesses, the industries they worked in, and the competitors they were up against. When an analysis was finished, Bainies didn't pack up and leave. [They made sure the client] continued to apply the lessons it had learned."[89]

In 1984, Bain decided to give his most highly regarded consultants an opportunity to ply their trade in a bigger-money industry than consulting: PE. To lead this venture, called Bain Capital, he tapped one of his best consultants, 37-year-old Mitt Romney (JD-MBA '75). Romney, in turn, put together a founding team consisting of Coleman Andrews (MBA Stanford '79), Eric A. Kriss (MBA Chicago '79), Robert F. White (MBA '82), Joshua Bekenstein (MBA '84), Fraser Bullock (MBA Brigham Young '80) and Geoffrey S. Rehnert (JD Stanford '84).

Bain Capital started out as an underdog in an industry with established players already raising funds in the billions of dollars. Bain Capital's first fund, raised in 1984, consisted of only $37 million of capital (50% from partners and 50% from their friends and family).[90] Romney's young GPs—some of them still paying off their student loans—felt fortunate to raise even that much (see **Exhibit 5**).[91] But almost right away, the firm began to distinguish itself for its exceptionally high performance and hands-on management, "retooling" its target companies "with Bain techniques."[92] Bain Capital partner Harry Strachan recalled that "our formula for creating superior value involved looking for situations where as many as possible of the following five factors could create shareholder value: (1) A superior management team, (2) An industry cycle working in our favor, (3) A superior strategy, (4) Immediate cost savings and operating improvements, (5) Financial leverage and good exit strategies."[93]

In an industry where the top firms generated IRRs between 20% and 30%, Bain Capital's first fund earned 60.8% (refer to **Exhibit 5**). In 1987, Bain Capital raised a second fund of $106 million. And as the stakes rose higher, Bain Capital's funds continued to perform. Many attributed this success to Romney's exacting, parsimonious management. As one journalist put it:

> Romney's cautious approach quickly defined Bain Capital. He worried all the time. "He was troubled when we didn't invest fast enough, he was troubled when we made an investment," [Partner Coleman] Andrews says. "He never wanted to fall short on commitments or representations made to investors." Quite apart from the swashbuckling era of 1980s corporate deals, where one buyout firm spent only six weeks to hatch a $25 billion takeover, decisions at Bain Capital were tested and retested, debated, discussed, and challenged. Any partner could veto a deal, so the case had to be strong enough to convince them all. At weekly meetings, Romney took deals apart, found weak spots in the analysis, and argued against going forward. He was so relentless in playing the role of devil's advocate that partner Bob White would later admit to sitting in the meetings occasionally wanting to "punch him in the nose."[94]

One of Romney's emblematic early investments was his 1986 VC deal for office superstore Staples.

Staples When former supermarket executive Thomas Stemberg (MBA '73) started his first Staples store in 1986, he was breaking new ground. For decades, office supplies had been sold to consumers through small general and drug stores and to businesses through mail-order services like W.B. Mason. Future office superstore competitors like OfficeMax and Office Depot did not yet exist. Stemberg saw a market opportunity in applying supermarket distribution methods to the office supply sector.[95] But even though he recruited an experienced management team with retail expertise—former Star Market executives Myra Hart and Todd Krasnow (MBA '81 and '83, respectively), turnaround expert Robert Leombruno, and operations guru Paul Korian—Romney was initially unsure of the investment. He worried that businesses would be less motivated to order small office items like paperclips or pens through big box stores to save money than they were for larger items.[96]

Bain Capital first became involved with Staples at the request of a group of VC firms Stemberg was negotiating with, including Adler & Co., Bessemer Venture Partners (BVP), and Hambro Ventures. BVP's Felda Hardymon (MBA '79) recalled bringing in Bain Capital to provide retail expertise.[97] Hardymon recalled: "Due diligence was a real thing with them. You could ask a rhetorical question and some Bain consultant would go out, do research for two days, and come back with answers."[98] Staples raised $4.5 million in its first financing round in January 1986, with investors gaining 56% of the equity.[99] Despite Romney's reservations, Bain Capital's first fund made a $650,000 investment.

Following the deal, Stemberg opened his first store in Brighton, Massachusetts.[100] The store's early results, however, were lackluster. Romney recalled that Staples was "a hard place to shop" that had "surly" staff.[101] On an early trip to the Brighton store, he found himself trapped in an inefficient checkout line with a malfunctioning credit card reader. These problems, along with merchandise shortages, would continue to plague Staples as it opened more stores in Woburn, Massachusetts, and Providence, Rhode Island.[102] As Staples underperformed, Romney took more control. He insisted that Stemberg hire a new COO to fix the in-store issues and began supervising Stemberg's choice of sites for new stores.[103] By 1987, when Staples had yet another botched launch in Port Chester, New York, Romney's tepid optimism was cooling. Though Bain Capital made its third investment in Staples that year, it was for a reduced amount. The fund's LPs grew frustrated with Staples as well, with one even making an outside investment in competitor Office Depot, seeking to run Staples out of business. (This led Bain Capital to institute a rule forbidding LPs from investing in competing firms.)[104]

In 1988 and 1989, however, Staples began to turn around, growing to 24 stores and 1,100 employees.[105] Stemberg and Bain Capital's GPs began receiving overtures to buy the company, and received an offer from Goldman Sachs to broker a sale. In the end, the offers were too low, and Staples went to an IPO in April 1989. Shares opened at $19, rising to $22.50 on the first day at a $200 million valuation.[106] Over the years that followed, Staples would grow to employ 88,000 people in 1,870 stores around the world.[107] Bain's profits, on a total investment of $2.5 million, would be $13 million.[108]

Focusing on LBOs Despite Staples' success, it was one of very few VC deals Bain Capital would make. In the late 1980s, the firm moved to focus almost exclusively on LBOs. Many of Bain Capital's buyouts experienced similar success, which the firm attributed to its outside-the-box management. Wrote one partner: "The firm has made some of its most successful investments in companies jettisoned by large corporations because top managers saw a poor 'strategic fit' or a mismatch with the company's overall 'core competence,' or because its business was not earning its 'risk-adjusted' cost of capital. In case after case, Bain Capital was able to help create enormous value despite the popular theories."[109]

One such early example was another 1986 acquisition: the wheel-making division of the Firestone Tire Company. After taking over the division with a $5 million investment and renaming it Accuride, Bain Capital managers, wrote one observer, "revamped production, restructured executive pay, and offered discounts to customers that gave Accuride all their business, instead of splitting it among competitors."[110] A year and a half after the acquisition, Accuride's earnings had increased 25%, and Bain Capital reaped $120 million in returns by selling it to the mining company Phelps Dodge Corp.[111] Two years later, Romney used Bain Capital Fund II to invest in a pair of Texas retail companies. That acquisition, financed with junk bonds, earned Bain Capital $180 million on a $10 million investment.[112] Despite the 1988 crash, Bain Capital continued raising new funds. Between the firm's formation and Romney's 1999 departure from Bain Capital to supervise the 2002 Winter Olympics, Bain Capital's results were some of the industry's best. Of the five funds raised under Romney, four earned IRRs in the top quartile of all PE funds.[113] When he left, the firm was raising funds of almost $1 billion.[114]

Few PE firms did better by their investors than Bain Capital (refer to **Exhibit 5**). However, the firm's record from the perspective of its target companies was a matter of debate. One MIT business professor who had also been a Bain Capital LP, said: "Bain Capital is the model of how to leverage brain power to make money. They are real first-rate financial engineers. [But,] they will do everything they can to increase the value. The promise to [investors] is to make as much money as possible. You don't say we're going to make as much money as possible without going offshore and laying off people."[115]

One oft-cited illustration was Bain Capital's 1992 leveraged acquisition of American Pad and Paper (Ampad) from the Mead Corporation. Bain Capital bought Ampad as the first step in a "roll-up strategy" where they serially purchased several office supply manufacturers in an effort to create economies of scale.[116] Bain Capital made these purchases not with its own funds, but with Ampad's (most of them borrowed). Meanwhile, Bain Capital charged management fees ($2 million per year) and acquisition fees to Ampad for brokering each deal. Ampad's debt increased from $11 million in 1993 to $400 million in 1999.[117] Sales did increase, but not enough to pay off the debt, and in 1999, Ampad went bankrupt. Between plant closures in Indiana in 1995 and upstate New York in 1999, nearly 400 employees lost their jobs.[118] But despite the zeroing out of the third of Ampad shares Bain Capital owned in the bankruptcy, Bain Capital investors ultimately came out $100 million ahead on Ampad.[119]

Reckoning with Private Equity

Well before Ampad, public debate had begun about the value PE added to the economy. Boosters of PE claimed that LBOs created unprecedented value in businesses that others had written off. Though some businesses acquired in LBOs ended up going bankrupt later on, many argued that these were distressed businesses anyway, and that a certain amount of failure was to be expected. And many of PE's successes were spectacular—not just for firms and investors but for target companies as well.

Echoing arguments from Jensen, PE advocates claimed that the short leash imposed by massive debt forced managers to make hard choices, streamline operations, and avoid corporate bloat. Jensen argued that debt was "a substitute for dividends"—a device that forced companies to pay out excess cash rather than financing projects that failed to directly create value.[120] He quoted G. Bennett Stewart and David Glassman's adage that "Equity is soft, debt hard. Equity is forgiving, debt insistent."[121] According to Jensen, the tyranny of debt resolved "the owner-manager problem," and explained why private companies controlled by PE "can motivate the same people, managing the same resources, to perform so much more effectively under private ownership than in the publicly held corporate form."[122] Executives' salaries, Jensen added in illustration, were 20 times more sensitive to company performance in debt-financed private firms than in their public counterparts.[123]

The criticisms of PE, however, were also many. They tended to fall into three main categories: (1) that on balance, Jensen was incorrect and PE had a net negative effect on the performance of target companies; (2) that PE's advantages for investors were offset by the high management fees PE firms charged; and (3) that PE created unbridgeable conflicts of interest, chief among them the concern that PE firms worried only about short-term value and cared little about long-term viability.

Target Company Performance

Critics worried about the sheer amount of debt LBOs piled onto companies and the potential of that debt to lead to bankruptcy or corporate decline (see **Exhibit 6**). Starting in the 1980s, critics had predicted a correlation between LBOs and bankruptcies. In 1984, SEC Commissioner John Shad had warned: "The more leveraged takeovers and buyouts today, the more bankruptcies tomorrow."[124] Until the early 2000s, little evidence was available to evaluate the long-term performance of LBO targets. In the 2010s, however, studies began to indicate a strong correlation between LBOs and bankruptcies, particularly among large take-private LBOs. One study found that from 1985 to 1999, between 5% and 8% of target companies went bankrupt prior to PE funds' exits.[125] Another study of 484 over-$50 million LBOs between 1980 and 2006 found that 20% of targets had gone bankrupt within 10 years of the PE fund's exit. Among the matched control companies that had not undergone LBOs, 2% went bankrupt in 10 years.[126] Other studies suggested that low target company performance was correlated only with big LBOs, and that private-to-private and smaller-value LBOs performed better.[127]

Similar effects were observed in employment. According to one 2019 study, private-to-private buyouts (which tended to be smaller) caused a 13% rise in employment levels at target companies, while take-private buyouts caused a 13% decrease. Secondary buyouts (in which one PE firm sold a portfolio company to another PE firm) caused a 10% rise in employment.[128] When all LBO categories were combined, the effects of LBOs on employment were statistically insignificant.[129] The same study found, however, that LBOs (across all categories) created significant (8%) gains in labor productivity.[130]

High Fees

No one doubted that the fee-heavy PE model worked well for the PE firm, which benefitted from extreme economies of scale. As one analyst pointed out, "the expenses associated with running a $10 billion fund are unlikely to be ten times as much as running a $1 billion fund."[131] For LPs, however, management fees could seem like a form of rent-extraction. Using data from 1984 through 2014, one study showed that a passive portfolio of publicly-traded securities could mirror the pre-fee distribution of PE returns.[132] Another study using data from 1990 to 2018 showed significant dispersion in the fees paid by public pension funds *within the same* PE fund. Some public pensions, this study estimated, could have earned $8.50 more per $100 invested if only they had obtained the most favorable terms that other LPs were able to access.[133]

Conflicts of Interest

Critics also charged that PE suffered from several built-in conflicts of interest. The first was the investor/manager conflict inherent in the GP position. As manager, a GP's incentive was to improve the company's long-term health; whereas as an investor, his incentive was to create short-term value for a successful exit. Then, there was the matter of fees for ongoing advisory and management services or additional debt-financing. As in the Ampad example, PE firms frequently charged transaction fees to portfolio companies for the portfolio company's acquisitions, meaning that the more transactions there were (regardless of their effect on the target company), the more the partners and firm benefitted.

There were also potential conflicts inherent in the LBO itself. One U.S. congressional report on PE explained: "Management, in its fiduciary capacity, is seeking to sell the corporation, and therefore, must have concluded that a sale is in the best interests of the shareholders. On the other hand, management, in its proprietary capacity, is seeking to purchase the corporation, and must have concluded that it can do so at a price favorable to it. In short, management is dealing with itself."[134]

Finally, there was the overarching worry that PE firms, far from promoting the managerial focus their leaders promised, were recreating the sort of unfocused conglomerates they had been designed to counteract. As one critic put it, "There are indications leading private equity firms are minded to transform themselves into broadly based financial groups. The bureaucracy this implies could undermine the dynamism that has proved crucial to the success of private equity firms."[135] The problem, the critic continued, was exacerbated by the ever-increasing supply of equity and debt financing. Because PE funds lasted for a limited time, GPs faced pressure to invest all their capital before they lost it, potentially incentivizing them to make "deals of dubious merit."[136]

Another commentator summed up the popular criticisms of PE: "The PE business model is designed to funnel income from portfolio companies and PE funds upwards to the PE firm. With so little of their own money at risk, these firms make outsized bets that pay off in good times. In bad times, they make money on the steep management fees paid by investors and monitoring fees paid by portfolio companies. Like the house in a casino, PE firms never lose."[137]

Bain Capital and the 2012 U.S. Presidential Election

In 2012, the PE industry faced the most intense public scrutiny it had endured since RJR Nabisco and Milken's jailing. That year, Mitt Romney won the Republican Party's nomination to challenge incumbent president Barack Obama, occasioning a public evaluation not only of Romney's record at Bain Capital, but of the PE industry as a whole. On the campaign trail, Romney touted his successes as evidence that he had created jobs and grown the economy by streamlining failing companies. Obama cited Bain's failures as evidence that Romney bled companies dry, taking so much out of them that the companies went bankrupt, leaving employees jobless and creditors penniless. Obama's campaign manager referred to Romney as a "corporate raider."[138] Obama's supporters accused Romney of "cherry-picking" his successes, while Romney's accused Obama of "lemon-picking" his failures.[139]

At times, criticism of Bain took on a moral character. In the *Rolling Stone,* journalist Matt Taibbi decried Romney's brand of PE as part of a wider PE culture of "greed and debt."[140] PE, Taibbi claimed, represented an "abdication of collective responsibility by America's rich, whose new thing was making assloads of money in ever-shorter campaigns of economic conquest, sending the proceeds offshore, and shrugging as the great towns and factories their parents and grandparents built were shuttered and boarded up, crushed by a true prairie fire of debt."[141] Echoing this sentiment eight years later, Sam Long (MBA '18) stated: "in aggregate, the industry is generating mediocre returns relative to much cheaper alternatives, all while relying heavily on unproductive financial engineering techniques that too often harm American communities."[a,142] (See **Exhibits 7** and **8** for VC and buyout returns.)

In an investigative piece on Bain Capital, the *Wall Street Journal* found that 17 of 77 over-$2 million investments the firm made resulted in bankruptcy. Of those, five had occurred while Bain Capital still owned the majority of the company.[143] When asked about this in an interview, "Romney said that in buyout deals, 'our orientation was by and large to acquire businesses that were out of favor and in some cases in trouble.' He added that Bain wasn't the type of firm that stripped companies and fired workers, but instead, 'our approach was to try to build a business. We were not always successful.'"[144] Though the debate over Bain Capital would quiet down after the election, the issues it laid bare would remain. Did PE firms genuinely help their target companies? Or were they simply using them?

Into the 21st Century

Reeling from the LBO collapse in 1988, most PE firms raised few new funds in the 1990s, focusing instead on managing their existing investments. Those new investment projects that did occur were more closely in line with the smaller, boutique investments of firms like Bain Capital than the megadeals of KKR or Forstmann Little.[145] In the early 2000s, however, the megadeal began to recover. In the year 2000, there were $28 billion worth of more-than-$1 billion buyouts worldwide; by 2006, there were $502 billion-worth.[146] The mid-2000s also saw the debut of the public PE company, when the Blackstone Group, one of the largest PE firms, made an IPO in 2006. Several firms followed in Blackstone's footsteps, including KKR. By the early 2010s, eight PE firms were publicly traded.[147] In 2007, a new record for LBO value was set when the TXU Corporation, a Texas-based electricity generation company, was taken private in a $32.1 billion buyout.[148] In a relatively new development for the industry, three PE firms (KKR, Texas Pacific Group, and Goldman Sachs Capital Partners) formed a consortium to carry out the buyout. As of writing, TXU remained the largest LBO in history.[149]

[a] At the time of writing, Long worked for an industry-leading investor in search funds. He has noted with irony that he is very much among the 31% of the HBS Class of 2018 that entered finance or investing directly after graduation.

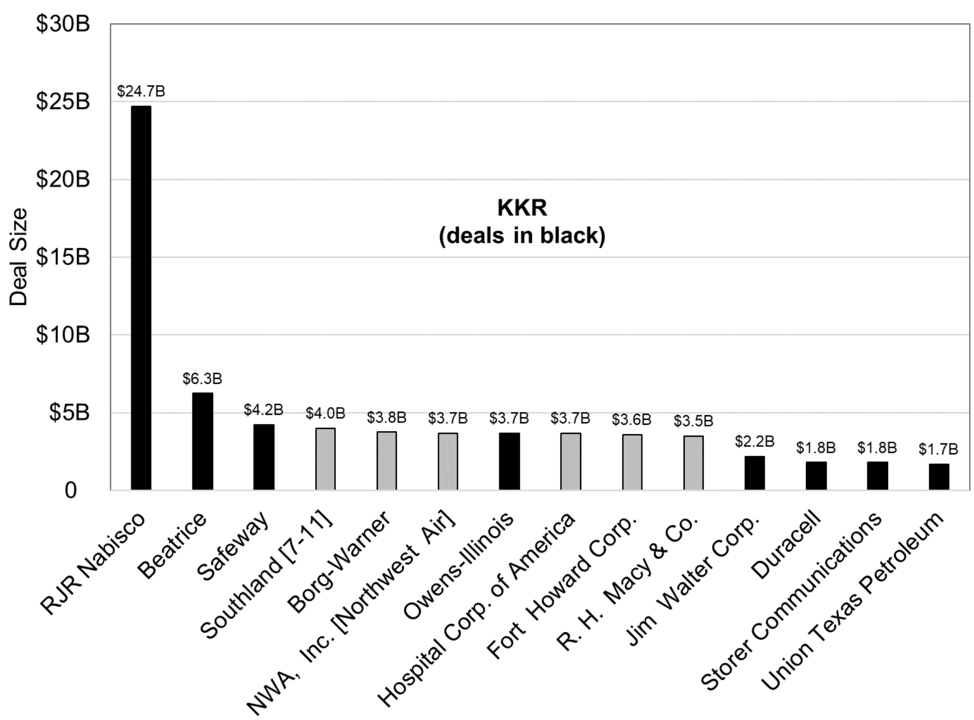
Exhibit 1 KKR Funds, 1978 to 1987

Fund Vintage	Fund Size	KKR Contribution	KKR Contrbution (% of fund)	Net IRR	Example of Portfolio Companies
1978	$32M	$3.0M	10.6%	30.5%	Houdaille, Sargent
1980	$75M	$3.1M	4.1%	32.0%	Marley, Fred Meyer, Lily-Tulip
1982	$316M	$5.0M	1.5%	41.8%	Dillingham, Wometco
1984	$1.0B	$7.5M	0.8%	28.0%	Cole National, Union Texas Petroleum
1986	$1.8B	$20.0M	1.1%	29.6%	Beatrice, Safeway, Owens-Illinios
1987	$5.6B	$140.0M	2.5%	8.8%	Jim Walter, RJR Nabisco

Source: Prepared by the casewriters using data from Sarah Bartlett, *The Money Machine: How KKR Manufactured Power and Profits* (Washington, DC: Beard Books, 2019), Appendix. The Net IRR for 1987 is from disclosures by the Oregon Public Employees Retirement Fund.

Note: Net IRR is the return from the fund to limited partners after deduction of carried interest, fees, and expenses.

Exhibit 2 Largest LBOs of the 1980s



Source: Prepared by the casewriters using data from Allen Kaufman and Ernest J. Englander, "Kohlberg Kravis Roberts & Co. and the Restructuring of American Capitalism," *Business History Review* 67:1, 1993, Table 1, p. 78.

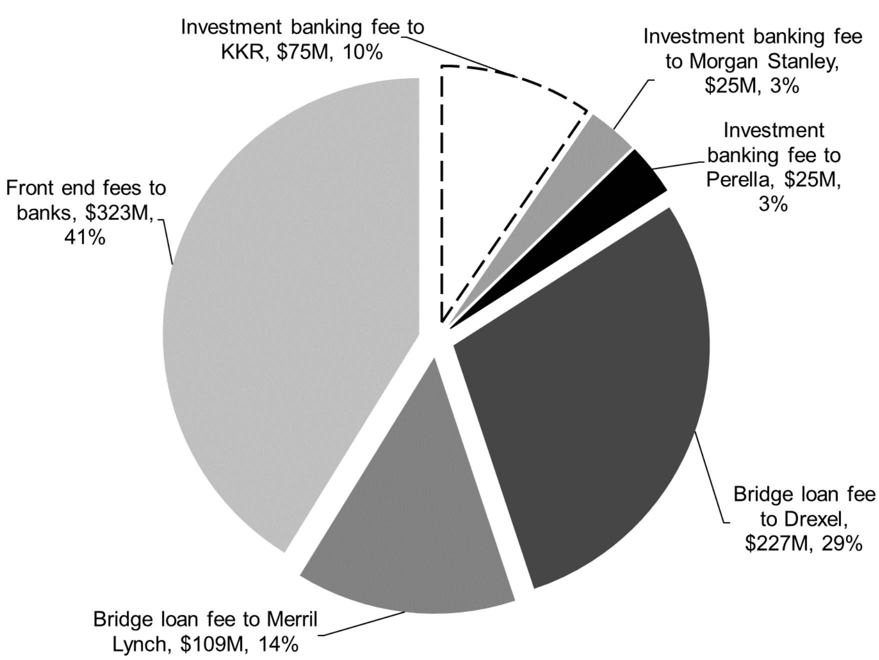
Exhibit 3 Fees on KKR Deals, 1977 to 1989

Year	Deal	Investment Banking Fee	Monitoring Fee	Gross IRR
1989	RJR Nabisco	$75M	$10M	
1987	Owens-Illinois	$60M	$600K	15.9%
1986	Safeway	$60M	$500K	62.1%
1986	Beatrice	$45M	$1.1M	50.0%
1988	Jim Walter	$35M	$500K	
1988	Stop & Shop	$28M	$375K	22.4%
1985	Storer	$23M	$350K	60.6%
1988	Duracell	$24M	$500K	6.6%
1987	Union Texas Petroleum	$14M	$400K	22.1%
1984	Malone & Hyde	$7M	$600K	22.0%
1984	Amstar	$5M	$350K	84.8%
1985	Cole National	$4M	$300K	44.2%
1988	IDEX	$2M	$268K	
1981	PT Components	$2M	$200K	50.9%
1977	L.B. Foster	$900K	$150K	16.8%
		$385M	**$16M**	

Source: Prepared by the casewriters using data from Sarah Bartlett, *The Money Machine: How KKR Manufactured Power and Profits* (Washington, DC: Beard Books, 2019), Appendix.

Note: Gross IRR is the return from the investment before carried interest, fees, and expenses.

Exhibit 4 Fees Associated with the Buyout Paid by RJR Nabisco



Source: Prepared by the casewriters using data from Robert N. McCauley, Judith S. Ruud and Frank Iacono, *Dodging Bullets: Changing U.S. Corporate Capital Structure in the 1980s and 1990s* (Cambridge, Massachusetts: MIT Press, 1999), p. 141.

Exhibit 5 Bain Capital Funds, 1984 to 1998

	Fund Vintage	Fund Size	Gross Profit	Multiple	Net IRR
Bain Capital I	1984	$37M	$211.1M	5.5x	60.8%
Bain Capital II	1987	$106M	$836.3M	7.4x	37.6%
Bain Capital III	1989	$60M	$226.6M	4.3x	32.5%
Bain Fund IV	1993	$300M	$1.4B	5.1x	66.1%
Bain Fund V	1995	$500M	$1.5B	3.5x	49.4%
Bain Fund VI	1998	$900M	$1.9B	3x	15.0%

Source: Prepared by the casewriters using data from Luisa Beltran, "Bain Capital Flourished Under Mitt Romney's Leadership: Exclusive – UPDATED," PE Hub, 16th August 2012, https://www.pehub.com/bain-capital-flourished-under-mitt-romneys-leadership/, accessed January 2021.

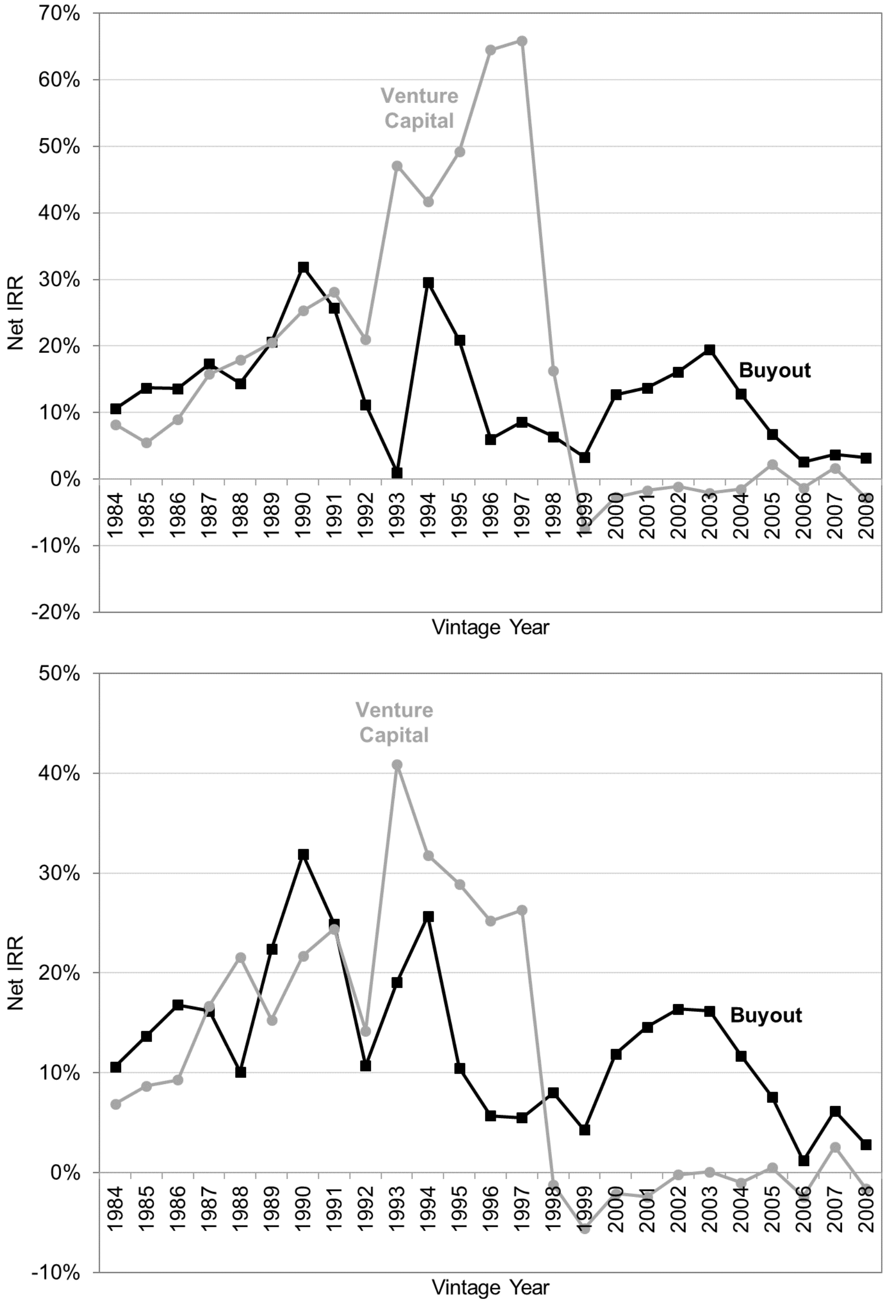
Note: Net IRR is the return from the fund to limited partners after deduction of carried interest, fees, and expenses.

Exhibit 6 LBO Industry-Wide Buyout Characteristics, 1982 to 1989

	EBITDA to Capital	Post-Buyout Debt to Capital	Common Stock to Capital	EBITDA to Interest
1982	17.2%	87.3%	6.7%	1.28
1983	13.5%	87.2%	11.5%	1.26
1984	14.3%	88.7%	7.9%	1.29
1985	13.0%	86.0%	7.0%	1.22
1986	13.5%	90.7%	5.6%	1.50
1987	10.8%	88.9%	4.0%	1.12
1988	11.5%	90.5%	6.1%	1.11
1989	13.3%	83.2%	13.2%	1.27

Source: Prepared by the casewriters using data from Steven N. Kaplan and Jeremy C. Stein, "The Evolution of Buyout Pricing and Financial Structure," *Quarterly Journal of Economics* 108:2, 1993, p. 313.

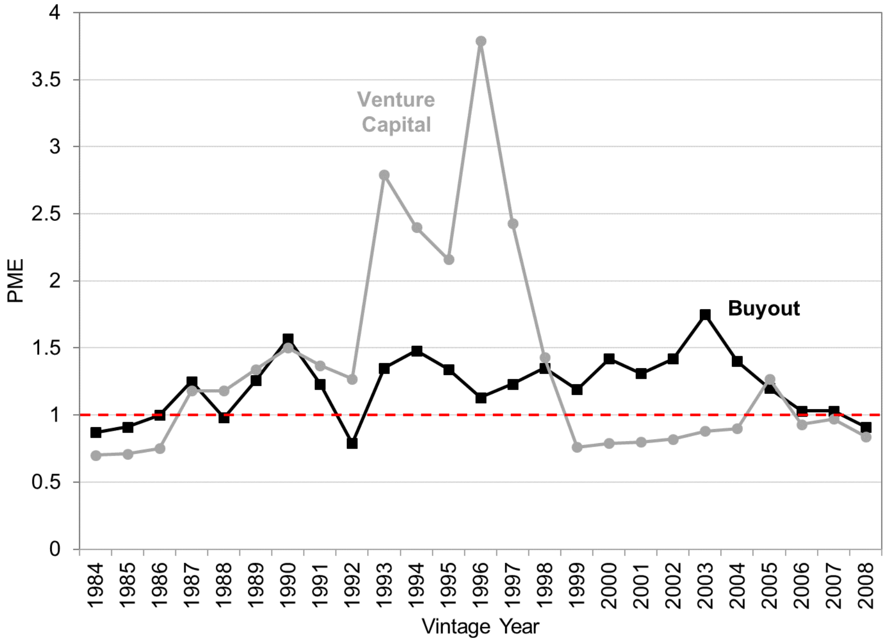
Exhibit 7 Net IRR Returns of Buyout and Venture Capital Funds, 1984 to 2008
(Top = Mean, Bottom = Median)

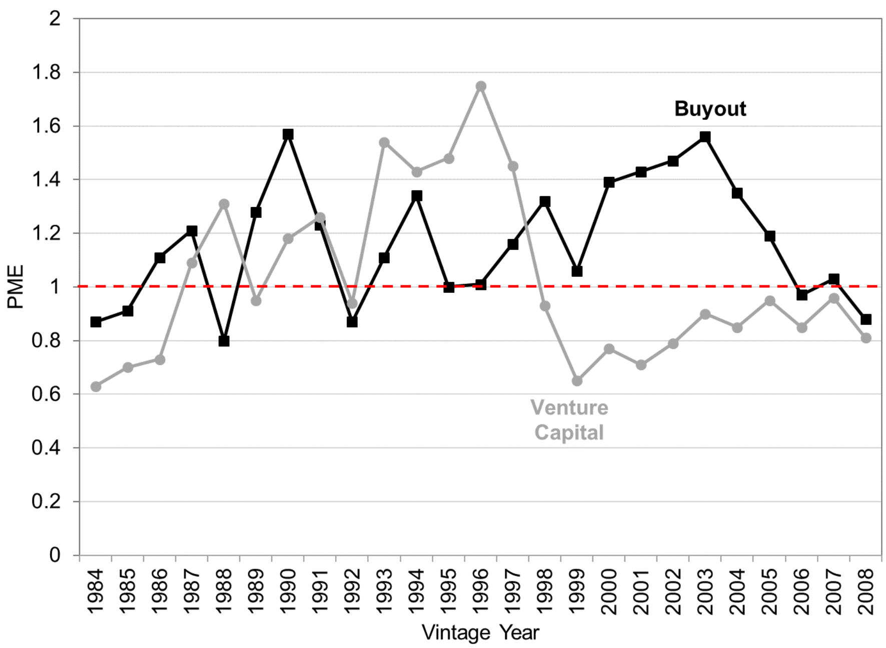


Source: Prepared by the casewriters using data from Robert S. Harris, Tim Jenkinson, and Steven N. Kaplan, "Private Equity Performance: What Do We Know?" *Journal of Finance* 69:5, 2014, Table II p. 1,860.

Note: Net IRR is the return from the fund to Limited Partners after deduction of carried interest, fees, and expenses.

Exhibit 8 PME Ratios for Buyout and Venture Capital Funds, 1984 to 2008 (Top = Mean, Bottom = Median)





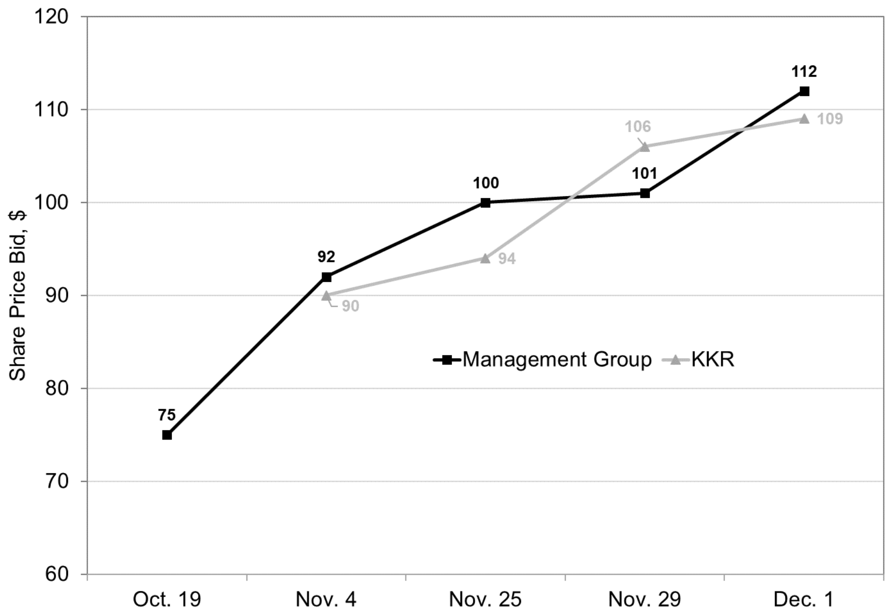
Source: Prepared by the casewriters using data from Robert S. Harris, Tim Jenkinson, and Steven N. Kaplan, "Private Equity Performance: What Do We Know?" *Journal of Finance* 69:5, 2014, Table III p. 1,864.

Notes: PME is a public market equivalent that compares an investment in a fund to an equivalent investment in a public market benchmark, here the S&P 500. If the ratio is greater than unity, the fund outperforms the public market. If the ratio is less than unity, the fund underperforms.

Appendix

This appendix contains financials for RJR Nabisco, which can be used to estimate the value of the firm relative to the bidding offers of the RJR Nabisco management group and KKR. **Exhibits A-2** to **A-6** draw on data contained in: Richard Ruback, "RJR Nabisco," HBS No. 289-056 (Boston: Harvard Business Publishing, 2006).

Exhibit A-1 1988 Bids by the Management Group and KKR for RJR Nabisco



Source: Prepared by the casewriters using data from Allen Michel and Israel Shaked, "RJR Nabisco: A Case Study of a Complex Leveraged Buyout," *Financial Analysts Journal* 47:5, Sep. - Oct. 1991, Figure C, p. 24.

Exhibit A-2 Condensed Operating and Stockholder Information for RJR Nabisco 1982 to 1987 (in millions of dollars, except per share data)

	1982	1983	1984	1985	1986	1987
OPERATIONS:						
Revenues	$7,323	$7,565	$8,200	$11,622	$15,102	$15,766
Operating income	1,142	1,205	1,412	1,949	2,340	2,304
Interest and debt exp	180	177	166	337	565	489
Income before provision for income tax	1,012	1,110	1,353	1,663	1,782	1,816
Inc from continuing ops	548	626	747	917	1,025	1,081
Inc from discontn ops(a)	322	255	463	84	39	128
NET INCOME	$870	$881	$1,210	$1,001	$1,064	$1,209
STOCKHOLDER INFORMATION:						
Earnings per share	$3.13	$2.90	$4.11	$3.60	$3.83	$4.70
Dividends per share	$1.14	$1.22	$1.30	$1.41	$1.51	$1.76
Stock price at year-end	$20.40	$24.30	$28.80	$31.38	$49.25	$45.00
Price/earnings year-end	6.5x	8.38x	7.01x	8.72x	12.86x	9.57x
Num shares y/e ($M) (b)	281.5	283.2	258.4	250.6	250.4	247.4
Beta (c)	0.80	0.70	0.74	1.21	1.24	0.67

Source: Created by Richard Ruback as originally published in "RJR Nabisco," HBS No. 289-056 (Boston: Harvard Business Publishing, 2006), p. 7.

(a) See "RJR Nabisco" HBS No. 289-056 for divestiture and acquisition detail.

(b) Figures include a 2.5:1 stock split, effective May 17, 1985.

(c) Calculated using daily stock price data for each year by ordinary least squares regression.

Exhibit A-3 Consolidated Balance Sheets for RJR Nabisco, 1986 to 1987 (in millions of dollars)

	1986	1987
ASSETS:		
Cash	$827	$1,088
Net receivables	1,675	1,745
Inventories	2,620	2,678
Other current assets	273	329
Property, plant and equipment, net	5,343	5,847
Goodwill and other intangibles	4,603	4,525
Net assets of discontinued operations	716	--
Other assets	644	649
TOTAL ASSETS	$16,701	$16,861
LIABILITIES:		
Notes payable	$518	$442
Accounts payable	2,923	3,187
Current portion of long-term debt	423	162
Income taxes payable	202	332
Long-term debt	4,833	3,884
Deferred income taxes	751	846
Redeemable preferred stock	291	173
Other non-current liabilities	1,448	1,797
TOTAL LIABILITIES	$11,389	$10,823
Stockholder's equity	5,312	6,038
TOTAL LIABILITIES AND S'HOLDERS EQUITY	$16,701	$16,861

Source: RJR Nabisco company reports as originally published in Richard Ruback, "RJR Nabisco," HBS No. 289-056 (Boston: Harvard Business Publishing, 2006), p. 8.

Exhibit A-4 Financial Summary of RJR Nabisco by Business Segment, 1982 to 1987 (in millions of dollars)

	1982	1983	1984	1985	1986	1987
TOBACCO:						
Sales	$4,822	$4,807	$5,178	$5,422	$5,866	$6,346
Operating prof	1,187	1,150	1,305	1,483	1,659	1,821
Identif assets	3,219	3,378	3,812	4,496	4,882	5,208
Depreciation	81	78	107	146	205	244
Cap expenditure	238	383	527	647	613	433
Operating profit/ identif assets	36.9%	34.0%	34.2%	33.0%	34.0%	35.0%
Restructurg exp	--	--	--	--	--	(261)
FOOD PRODUCTS:						
Sales	$2,501	$2,758	$3,022	$6,200	$9,236	$9,420
Operating prof	21	129	181	549	820	915
Identif assets	1,710	1,761	2,211	9,598	9,822	10,117
Depreciation	51	56	68	195	376	380
Cap expenditure	84	94	86	279	344	445
Operating profit/ identif assets	1.2%	7.3%	6.0%	6.0%	8.0%	9.0%
Restructurg exp	--	--	--	--	--	18
SPIRITS & WINES:						
Sales	$392	$746	$703	$766	$876	--
Operating prof	53	113	122	131	138	--
Identif assets	1,084	740	815	895	991	--
Depreciation	14	24	22	24	30	--
Cap expenditure	11	13	13	26	25	--
Operating profit/ identif assets	4.9%	15.3%	15.0%	14.6%	14.0%	--
Restructurg exp	--	--	--	--	--	--
OTHER (including "corporate")(a)						
Sales	--	--	--	--	--	--
Operating prof	(66)	(74)	(74)	(83)	(139)	(182)
Identif assets	3,106	3,197	2,257	1,684	1,319	1,536
Depreciation	11	16	16	13	24	28
Cap expenditure	16	15	29	20	65	58
Operating profit/ identif assets	-2.1%	-2.3%	-3.3%	-5.0%	-10.5%	-11.9%
Restructurg exp	--	--	--	--	--	(7)

Source: RJR Nabisco company reports as originally published in Richard Ruback, "RJR Nabisco," HBS No. 289-056 (Boston: Harvard Business Publishing, 2006), p. 9.

(a) Includes earnings on cash and short-term investments, and miscellaneous discontinued operations.

Exhibit A-5 Cash Flow and Capital Structure Projections for RJR Nabisco: Management Group Strategy, 1989 to 1998 (in millions of dollars)

PANEL A:	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
OPERATING INFORMATION										
Sales	7,650	8,293	8,983	9,731	10,540	11,418	12,368	13,397	14,514	15,723
Operating income	1,917	2,385	2,814	3,266	3,589	3,945	4,337	4,768	5,243	55,766
Interest	2,792	1,353	1,286	1,183	1,037	850	624	351	0	0
Amortization (a)	388	388	388	388	388	388	388	388	388	388
After-tax income	(965)	293	621	987	1,297	1,655	2,063	2,527	3,073	3,418
Deprec, amortization & deferred tax	777	725	726	735	749	754	758	763	769	774
Capital expenditures	432	381	380	389	396	402	412	422	432	442
Chg in working capital	41	45	48	52	57	61	67	72	78	85
Net proceeds from asset sales	12,680	0	0	0	0	0	0	0	0	0
Cash flow available for capital payments (b)	12,018	593	919	1,282	1,594	1,946	2,344	2,797	3,332	3,666

PANEL B: CAPITAL STRUCTURE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Principle Payments To:										
Assumed debt	310	375	721	816	400	728	1,854	0	0	0
Bank debt	11,708	218	198	466	1,194	1,217	0	0	0	0
Subordinated debt	0	0	0	0	0	0	490	2,510	0	0
Preferred stock	0	0	0	0	0	0	0	287	3,332	3,327
Convertible preferred	0	0	0	0	0	0	0	0	0	339
TOTAL	12,018	593	919	1,282	1,594	1,946	2,344	2,797	3,332	3,666
Year-End Book Values:										
Assumed debt	4,894	4,519	3,798	2,982	2,582	1,854	0	0	0	0
Bank debt	3,292	3,075	2,877	2,411	1,217	0	0	0	0	0
Subordinated debt	3,000	3,000	3,000	3,000	3,000	3,000	2,510	0	0	0
TOTAL	11,186	10,594	9,675	8,393	6,799	4,854	2,510	0	0	0

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Year-End Book Values:										
Preferred stock	1,632	1,938	2,303	2,736	3,250	3,861	4,587	5,162	2,801	0
Convert preferred stock	1,035	1,229	1,460	1,735	2,061	2,448	2,909	3,455	4,105	4,538
Common Stock	1,535	1,828	2,449	3,436	4,733	6,388	8,451	10,978	14,051	17,469
TOTAL	4,202	4,995	6,212	7,907	10,044	12,697	15,947	19,595	20,957	22,007

Source: RJR Nabisco company reports as originally published in Richard Ruback, "RJR Nabisco," HBS No. 289-056 (Boston: Harvard Business Publishing, 2006), p. 11.

(a) The amortization of goodwill of $338 million per year is from the proposed acquisition of RJR Nabisco at $22.9 billion, which had the book value of $7.4 billion at the end of 1988. The difference between the purchase price and the book value is amortized over 40 years using the straight-line method.

(b) Cash flow available for capital payments = net income + depreciation, amortization & deferred tax - capital expenditures - change in working capital + net proceeds from asset sales.

Exhibit A-6 Cash Flow and Capital Structure Projections for RJR Nabisco: KKR's Strategy, 1989 to 1998 (in millions of dollars)

PANEL A:	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
OPERATING INFORMATION										
Tobacco sales	7,650	8,293	8,983	9,731	10,540	11,418	12,368	13,397	14,514	15,723
Food sales	8,540	6,930	7,485	8,084	8,730	9,428	10,183	10,997	11,877	12,827
TOTAL	16,190	15,223	16,468	17,815	19,270	20,846	22,551	24,394	26,391	28,550
OPERATING INCOME										
Tobacco	2,022	2,360	2,786	3,071	3,386	3,733	4,115	4,534	4,998	5,508
Food	1,060	1,026	1,191	1,245	1,307	1,367	1,430	1,494	1,561	1,630
Corporate	(219)	(158)	(167)	(176)	(185)	(194)	(203)	(213)	(224)	(235)
TOTAL	2,862	3,228	3,811	4,140	4,508	4,906	5,341	5,815	6,335	6,902
Interest expense	2,754	2,341	1,997	1,888	1,321	1,088	806	487	21	0
Amortization	388	388	388	388	388	388	388	388	388	388

PANEL B:	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
OPERATING INFORMATION										
After-tax income	(281)	233	845	1,134	1,751	2,168	2,641	3,164	3,814	4,203
Deprec, amortization & deferred taxes	1,159	991	899	907	920	924	928	933	939	945
Capital expenditures	774	556	555	572	586	598	618	638	658	678
Chg in working capital	79	84	87	94	102	110	119	129	140	151
Non-cash int expense	206	237	312	366	0	0	0	0	0	0
Net proceeds asset sales	3,500	2,700	0	0	0	0	0	0	0	0
Cash flow available for capital payments	3,732	3,521	1,414	1,740	1,983	2,383	2,832	3,330	3,956	4,319

PANEL C: CAPITAL STRUCTURE

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Principle Payments To:										
Assumed debt	310	375	721	816	400	400	2,182	0	0	0
Bank debt	3,422	3,146	693	924	1,583	1,983	629	0	0	0
Subordinated debt	0	0	0	0	0	0	21	3,330	149	0
Preferred stock	0	0	0	0	0	0	0	0	3,806	4,319
TOTAL	3,732	3,521	1,414	1,740	1,983	2,383	2,832	3,330	3,956	4,319
Year-End Book Values:										
Assumed debt	4,894	4,519	3,798	2,982	2,582	2,182	0	0	0	0
Bank debt	8,958	5,812	5,119	4,195	2,612	629	0	0	0	0
Subordinated debt	3,500	3,500	3,500	3,500	3,500	3,500	3,470	149	0	0
Converting debt	1,580	1,817	2,129	2,495	0	0	0	0	0	0
TOTAL	18,932	15,648	14,546	13,172	8,694	6,311	3,470	149	0	0

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Year-End Book Values:										
Preferred stock	2,896	3,331	3,958	4,702	5,586	6,636	7,883	9,365	7,320	4,377
Common stock	1,219	1,452	2,297	3,430	7,676	9,844	12,485	15,648	19,463	23,666
TOTAL	4,115	4,783	6,255	8,132	13,262	16,480	20,368	25,013	26,783	28,043

Source: RJR Nabisco company reports as original published in Richard Ruback, "RJR Nabisco," HBS 289-056 (Boston: Harvard Business Publishing, 2006), p. 12.

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