The **alchemy** of LBOs

Paul A. Butler

How can investment bankers achieve better results at chemicals companies than engineers and chemists do? No, it isn't black magic.

Over the past two years, big chemicals corporations seeking to improve shareholder returns by running more focused businesses have sold assets worth almost $20 billion to leveraged-buyout (LBO) firms and similar private companies.[1] Indeed, in 1999 and 2000 the value of public-to-private chemicals deals ran at about twice the total for the previous ten years.

Many people in the industry are bemused by this trend. How, they wonder, can investment bankers with no knowledge of engineering or chemicals, and

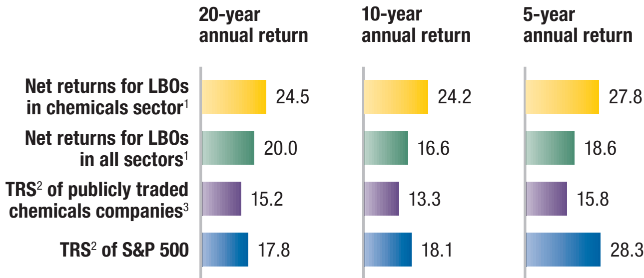
[1] For example, two private-equity firms, Cinven and Investcorp, paid a total of $2.1 billion for Zeneca's specialty-chemicals business in 1999, while the investment bank Morgan Grenfell Private Equity spent $1.1 billion on Ciba's epoxy resins business in the same year. Also, in 2000, the US LBO firm Apollo Management paid a similar sum for Shell's epoxy resins operations.

ADAM NIKLEWICZ

EXHIBIT 1

Returns to investors: A comparison

Compound average annual rate of return, percent



[1]Includes leveraged-buyout-fund investments in later stages (for example, management buyouts, leveraged buyouts, and mezzanine financing); does not include venture capital. Returns are total returns to external investors, net of all fees, as of December 31, 1999.
[2]Total returns to shareholders.
[3]Composite of total returns to shareholders (capital appreciation plus dividends) for publicly traded chemicals companies in the United States.

with plans that seem to ignore industrial logic and strategic synergies, succeed as owners of these operations? But succeed they do. For 20 years, the total shareholder returns of publicly traded US chemicals companies have been lower than those of the S&P 500 (Exhibit 1). Meanwhile, chemicals companies owned by LBO firms delivered substantially higher returns than did their traditional counterparts—even when those returns are corrected for the LBO firms' higher leverage.

This fact poses real threats to chemicals corporations. First, institutional investors are questioning the ability of traditional managers—the engineers and chemists who built those huge tangles of pipes and vessels in the 1960s and 1970s—to run a maturing industry. The collapse of share prices over the past two years signals this loss of faith, which has created another problem: depressed prices make chemicals companies vulnerable to hostile bids from LBO firms or stronger competitors.

In addition, the ability of chemicals companies to grow through strategic acquisitions has been hampered by the ability of LBO players to pay higher prices for them. And chemicals companies are losing the war for talent: the best managers would rather work hard to turn around underperforming businesses in return for the potentially high rewards that LBO firms offer than cruise along in sluggish traditional chemicals companies.

How should those companies respond to the threat? They must start by understanding what an LBO firm does with a business it buys.

The truth about LBO firms

Some managers in the chemicals industry are consoled by any combination of false beliefs: that the new owners are looking to transfer their companies to a greater fool in the shortest possible time, that they are financial magicians who turn solid balance sheets into smoke and mirrors, and, worst of

all, that they recklessly slash and burn sound businesses in their selfish quest for quick returns.

The truth is quite different. Detailed financial analyses of many deals, as well as interviews with dozens of people experienced in buying, selling, and operating leveraged chemicals buyouts, highlight some fundamental truths about LBO firms.

They create the most value by improving operations

Unlike property sharks, LBO firms hold businesses for a considerable time and improve their value before selling them. Although financial data for LBO firms are not reported, McKinsey analyzed nine chemicals LBOs, subsequently floated publicly, for which financial histories were available. About two-thirds of the value these LBOs captured was created during the holding period, and only one-third derived from the actual transaction. Other studies had similar findings.[2] It is, after all, in the interest of LBO firms to improve their chances of selling the businesses they hold.

They are tough but committed

LBO firms have been accused of ripping companies apart for a quick buck. But research shows that the need to generate higher cash flows from operations in order to service and repay high levels of debt compels LBO firms to improve the performance of their companies.

Freed from the constraints of the corporate center, LBO firms can more easily make difficult decisions about cutting jobs and disposing of businesses; removing unnecessary costs and improving capital productivity are well-tried levers. Moreover, R&D spending comes under close scrutiny after an LBO; resources are refocused on projects that offer a reasonable chance of return in the short and medium terms, not on undertakings with poor projected returns or a low probability of success. Similarly, highly motivated managers cut capital expenditures by getting more output from current assets instead of following the traditional route of cadging money from the corporate center every few years.

They want growth

LBO firms want more than value from their existing assets; they also seek growth: after all, an initial public offering is possible today only if the business to be floated has a history of strong growth. Research shows that

[2] *See*, for example, Patricia L. Anslinger and Thomas E. Copeland, "Growth through acquisitions: A fresh look," *The McKinsey Quarterly*, 1996 Number 2, pp. 96–109.

LBO owners of businesses are willing to make acquisitions previously rejected by their former owners, which usually regarded them as noncore elements of the portfolio and therefore didn't want to invest much time and effort in running them.

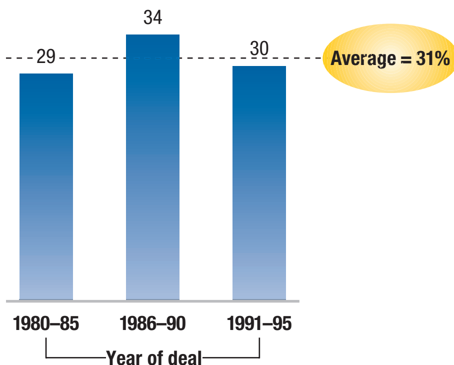
Some financial players concentrate on just a few sectors. Huntsman is one of the best examples; in the 1980s and 1990s, it created a polystyrene business (later sold to Nova) from a variety of US and European acquisitions.[3] D. George Harris & Associates, another case in point, created a global salt and soda ash business from a number of acquisitions and then sold it as a package to IMC Global. Harris also undertook a similar project in construction chemicals, while Geo Specialty Chemicals did so in aluminum chemicals and Sovereign Specialty Chemicals did so in adhesives.

EXHIBIT 2

Unconventional wisdom: LBO firms hold on

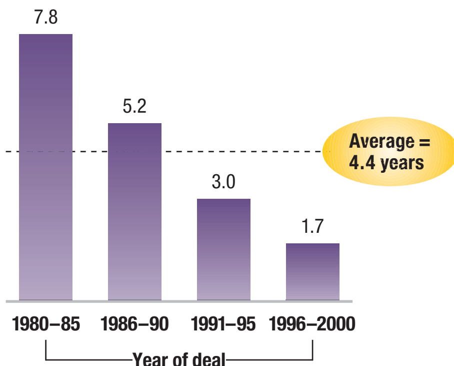
Only about one-third of LBO firms exit within 5 years of purchase . . .

Percent of deals exited by Year 5



. . . but for those who do, the holding times have fallen sharply

Average holding time for deals with exit, years



They hold on to their businesses

The conventional view is that LBO firms dress up and resell businesses as quickly as possible, usually within five years of purchase. But research into the 200 public-to-private chemicals deals undertaken since 1980 shows that less than one-third of the purchasers exited within five years. The holding times for deals that purchasers do exit have been falling sharply, however—from around eight years in the early 1980s to less than two in the late 1990s (Exhibit 2).

This change, however, may reflect the near impossibility of exiting

[3]Jon Huntsman, an early initiator of LBO activity in chemicals, had little experience in the industry; before setting out on his financial career, he had been a special assistant to US President Richard M. Nixon. In the years since Huntsman bought his first chemicals plant, from Shell, in 1982, he has built up the world's largest privately held chemicals company through a series of shrewd deals, such as the acquisition of many Texaco chemicals operations (from 1994 to 1997) and a huge chunk of the commodity businesses owned by Imperial Chemical Industries (in 1999).

through the LBO firms' favorite route: an IPO. As the quintessence of the old economy, the chemicals industry has been out of favor with investors, and since 1996 there has been no IPO of a chemicals business that had previously been taken private; the last were ChiRex and Brunner Mond. Selling to trade buyers is now the preferred exit route, though it isn't uncommon to make use of private-to-private sales and even of secondary LBOs—for example, a second injection of debt financing, often from another LBO house, after the first debt package has been repaid.

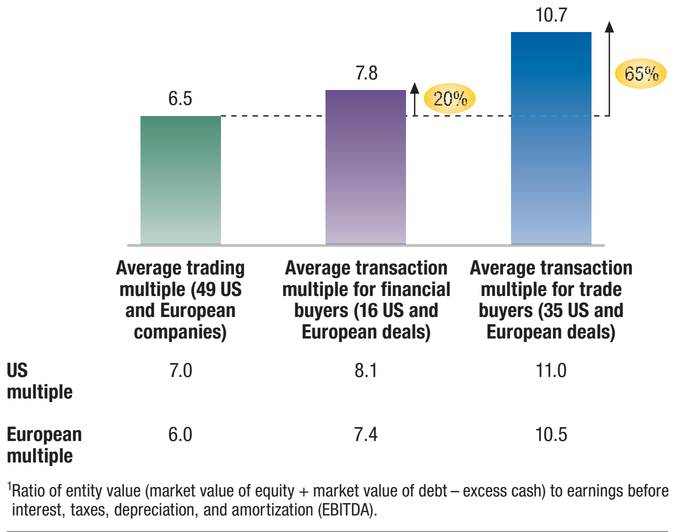
They are excellent negotiators

Financial buyers consistently paid less for their acquisitions during the 1990s than did trade buyers (Exhibit 3), probably because of their dispassionate approach: they screen dozens of deals for every one they execute. By contrast, traditional chemicals companies often overestimate the synergies to be gained by acquiring similar businesses and then get carried away in the auction of the prize asset, on which managers have set their hearts and possibly their careers.

EXHIBIT **3**

Financial buyers pay less

Entity value/EBITDA multiples[1] for chemicals industry deals, 1990–2000



	Average trading multiple (49 US and European companies)	Average transaction multiple for financial buyers (16 US and European deals)	Average transaction multiple for trade buyers (35 US and European deals)
US multiple	7.0	8.1	11.0
European multiple	6.0	7.4	10.5

[1]Ratio of entity value (market value of equity + market value of debt – excess cash) to earnings before interest, taxes, depreciation, and amortization (EBITDA).

The tax shield on debt interest makes many people think that the value in LBOs comes from using lots of debt rather than equity. LBOs are considered risky, however, so this tax advantage is almost entirely offset by the higher cost of the debt. What really drives the high performance of the LBO firms is the need to repay so much debt, as well as the fact that senior managers have put forward their own funds—often raised by borrowing from banks or by remortgaging family homes—as equity in the company. Combined with hopes of a big earn-out, these pressures promote concentrated efforts to generate cash and deliver results.

Differences between the financial-incentive packages for executives in the traditional part of the industry and their counterparts in businesses run by

LBO firms are startling. The major disparity is the link between effort and reward. Managers with experience in both environments invariably point to the weakness of the connection between what managers actually do in the large chemicals corporations they work for and their nonsalary compensation. Effort is unrelated to payback, since the value of stock options, bonuses, phantom shares, and similar devices is subject to many forces—including creative accounting—outside the managers' control.

Traditional chemicals companies measure performance through return on net assets or on capital employed. LBO firms, by contrast, focus single-mindedly either on earnings before interest, taxes, depreciation, and amortization (EBITDA) or on cash flow. The achievement of targets typically intended to double a business's EBITDA within five years triggers bonus payments to senior managers and, often, to other employees.

They often make companies safer and more environmentally responsible

One manager spoke of a revolution in the way health, safety, and the environment were handled after an LBO firm purchased a chemicals business: a company whose record was so poor that insurance had been almost impossible to get metamorphosed into one whose "reception area is plastered with safety awards." Victrex, another company purchased in an LBO, won awards from the United Kingdom's Royal Society for the Prevention of Accidents in each of the first two years following a buyout from Imperial Chemical Industries. No doubt, the motivation for these improvements wasn't entirely altruistic, since it is far easier to build up and exit from a business with a good safety record, but improved safety is a point in the LBO firms' favor.

The LBO approach

All these considerations show that traditional chemicals companies must now compete against new players that focus relentlessly on performance and growth. And this is no short-term trend. The amount of new funds seeking investment[4] and the huge restructuring opportunities created by the disintegration of European chemicals conglomerates (especially in France and Germany) point to more, not less, LBO activity.

Chemicals companies must therefore take action, since every one of them includes businesses that sit uncomfortably in the portfolio, dragging down share prices and putting them within reach of predators (*see* sidebar, "Who benefits from the LBO approach?").

[4] Lehman Brothers reports that US private-equity firms raised $84 billion in the first ten months of the year 2000, compared with $76 billion in 1999 and $34 billion in 1998.

Such companies have four options.

1. Get the best deal from financial buyers

Traditional chemicals corporations don't always get the best possible deal when they sell their businesses to LBO firms. In 1998, for example, Hoechst sold its Vianova Resins business to Morgan Grenfell Private Equity for $542 million. Only 12 months later, Morgan Grenfell resold Vianova to Solutia in a trade sale worth $640 million—an almost instant profit of nearly 20 percent.

Financial buyers pay less on average not only because of their dispassionate approach to acquisitions but also because they tend to negotiate downward during the due-diligence phase from a price that had earlier been accepted in principle. Once LBO firms find themselves the sole bidder, they are skilled at discovering problems (for instance, environmental liabilities or outdated equipment) in the seller's business offer.

Chemicals companies can respond in a number of ways. They should maintain a competitive auction right up to the last minute, because so many LBO firms, not to mention trade buyers, are interested in chemicals acquisitions. To boost the buyer's confidence in the senior managers of the business to be sold, the seller should also involve them in the negotiations. And if the selling company maintains a small equity stake in the business—say, 10 or

Who benefits from the LBO approach?

Traditional chemicals corporations should seriously consider a leveraged buyout if they satisfy some or all of the following criteria:

- Chronic underperformance as well as an unwillingness by owners to make difficult decisions—for instance, to close plants and cut costs
- Static or negative growth in demand in businesses whose focus has shifted to improving capital productivity; in this case, relentless attention to cutting costs and rationalizing production is needed
- Product, process, and market maturity that have collectively tilted the balance away from innovation and toward greater operational effectiveness
- Cash flows sufficiently strong and stable to support high leverage
- A lack of portfolio synergies

20 percent, possibly with a seat on the board—it will have a chance to learn how LBO firms achieve their high levels of return.

Selling noncore businesses to financial buyers is a low-risk approach and, in many cases, one that is preferable to hanging on to underperforming assets indefinitely. Fortunately, the LBO market is now sufficiently competitive that any business, except for one with massive environmental liabilities, should be able to fetch a fair price.

2. Execute an internal LBO

The second option, an internal LBO, aims to create as much value as LBO houses might but to capture the gain for a company's own shareholders. This course sounds simple, but its rarity in the chemicals industry, and indeed in most others, should bear witness to its difficulty. An internal LBO has a better chance of succeeding if a corporation has nothing to lose—that is, if the business unit is small and noncore or can't be sold for a reasonable price.

Unfortunately, corporate centers find it hard to resist the temptation to interfere in the operation of anything they own. When business managers whose companies have made the transition from ownership by corporations to ownership by LBO firms give interviews, they always emphasize that independence from the corporate center is the most important factor for success.

Exhibit 4 shows four financial structures, ranging from an internal carve-out to a joint venture with a private investment firm, that could be applied to an internal LBO. Their common features include high leverage, equity purchased with personal funds by the senior-management team, and complete operational and strategic freedom for those managers. The other important feature is the possibility of exit routes similar to those that might be expected in a real LBO. There can be no guarantee for the equity stakes of managers, but they must be able to have a reasonable expectation that, in the absence of an IPO, the parent might reacquire the business or that it could be sold to a trade buyer or recapitalized.

Financing options for an internal LBO are so numerous that an experienced practitioner must help the corporate parent choose the one that best suits the objectives of all parties: the seller, the debt providers, the senior business managers, and, in one variant, an LBO house as a joint-venture partner. The hard part is assessing the stock market's reaction. Both Allied Corporation's internal LBO of Union Texas Petroleum in 1985 and IMC's internal LBO of its fertilizer business in 1987 are said to have given the corporate parents

EXHIBIT 4

Four options for an internal LBO

Do-it-yourself ← → Collaboration

	Internal carve-out	Leveraged partial public offering	Management buyout	Joint-venture LBO
Equity ownership				
• Chemicals company	100	70	80	40
• Public	0	20	0	0
• Management	0	10	20	10
• LBO firm	0	0	0	50
Quoted stock price?	No	Yes	No	No
Debt	Nonrecourse	Nonrecourse	Nonrecourse	Nonrecourse
Management incentives	Phantom stock linked to EBITDA[1]	Easy cash-out when options expire	Cash-out on exit	Cash-out on exit
Exit strategy	• Possibly none • Trade sale	• Secondary public offering • Trade sale • Repurchase by chemicals company	• Initial public offering • Trade sale • Repurchase by chemicals company	• Initial public offering • Trade sale • Repurchase by chemicals company
Advantages	• All value retained by chemicals company	• Independent market valuation • Equity liquidity	• Chemicals company retains majority of value • Managers are highly motivated	• Separation from chemicals company • Exploits LBO firm's skills
Disadvantages	• Difficulty of achieving truly nonrecourse debt • Temptation for chemicals company to interfere	• Complex, expensive • Stock price may not reflect business unit's true value	• Exit may be difficult • Equity valuation at exit may be difficult	• Considerable value goes to LBO firm • Exit and equity valuation may be difficult

[1]Earnings before interest, taxes, depreciation, and amortization.

(and, indirectly, their shareholders) the kind of returns typically associated with conventional LBOs.[5]

At present, the benefit for a chemicals corporation may be measured more by psychological effects than by share prices. An active search to find a solution for a troublesome business is almost certainly more satisfying than meeting a set of core-business performance targets that will get a company no credit from stock analysts. And if the internal LBO is successful or even looks as though it might be, it provides a huge incentive to expand the experiment to other, bigger problems. By comparison, the risks are modest for everyone involved.

3. Undertake a leveraged recapitalization

The third alternative, a leveraged recapitalization of an entire company, is riskier than an internal LBO because the former makes the entire company

[5]*See* G. Bennett Stewart III, *The Quest for Value: The EVA Management Guide*, New York: Harper, 1991.

more highly leveraged. Unlike a company that goes private, a recapitalized company retains its public shareholders, has stock quoted on a public exchange, and publishes the usual financial data. The difference is that more of the equity is placed in the hands of senior management, and possibly other employees, thus strengthening the incentive to maximize the company's performance.

Taking whole companies private in leveraged management buyouts goes as far as possible on the spectrum of **risk and reward**

Union Carbide conducted a leveraged recapitalization in 1985. Saddled with the consequences of a disastrous diversification and a serious accident at an Indian pesticide plant, the company faced a hostile bid from GAF, a much smaller player. Carbide saved itself from GAF's attentions by going into debt to repurchase 55 percent of its shares at a price GAF couldn't match. It then sold off its battery unit—which included Eveready Batteries, one of Carbide's best-performing businesses—and used the proceeds to pay off the debt. This defensive recapitalization forced Carbide to focus on just a few sectors of the petrochemicals industry, a strategy that was successful for nearly 15 years.[6]

4. Take the whole company private

The approach that goes about as far as possible on the risk-and-reward spectrum is to take the whole company private in a leveraged management buyout (MBO). Although the returns might prove spectacular, much personal wealth would have to be ventured, so it isn't surprising that the chemicals industry provides few examples. One of them was the buyout of most of the equity in GAF by Sam Heyman in 1989 and its flotation two years later.

That deal took place more than ten years ago. Today's executives must avoid accusations that a management buyout would permit a few insiders to make huge gains at the expense of thousands of public shareholders. To put the problem another way, no deal that shareholders would find acceptable is likely to give MBO participants the returns they desire.

Yet in some parts of the economy, management buyouts of whole companies have become quite fashionable. In UK commercial property, for example, a rash of participants—including MEPC, the sector's fourth-largest player—went private last year. More and more people think that market quotations

[6] Carbide ran out of steam in the late 1990s and will almost certainly end up being acquired by its rival Dow Chemical.

for property companies have outlived their usefulness, since buying a group of assets and collecting rents can never deliver equity-like rates of return on investment.

The chemicals industry as a whole hasn't reached that stage in its evolution yet, though some of its sectors, such as European fibers and fertilizers, are perilously close.

Chemicals companies should take advantage of the LBO firms' current appetite for their businesses and sell more unwanted assets. The present state of affairs probably won't last indefinitely, since LBO firms are likely to find it increasingly hard to exit from chemicals deals. The IPO route is closed for the foreseeable future, and trade sales are becoming more difficult because regulators fear that acquirers may raise their market concentration to unacceptable levels. As an alternative, companies could try the LBO approach to creating value; they might find that as much as 50 percent of their businesses could benefit, which would imply a huge overall improvement in their performance. MQ

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