The M&A Failure Trap

Why Most Mergers and Acquisitions Fail and How the Few Succeed

By

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Preface

Preamble Why Should You Read This Book?

You surely heard about mergers and acquisitions (M&A)—the largest and most consequential investments companies make, but you weren't aware that most of them (70–75%) fail to meet expectations, and it's getting worse. You should be aware of this destructive phenomenon, its wide-ranging adverse consequences, and the ways to avoid it, all outlined in detail in this fully evidence based book.

Chapter 1 Appetizer: The Good, the Bad, and the Ugly

We open this book with a bird's-eye view of the M&A scene—a discussion of three highly consequential acquisitions: a smashing success ("the good"), a resounding failure ("the bad"), and an embarrassing fiasco ("the ugly"). We draw important preliminary lessons from these three acquisitions in this chapter.

Chapter 2 The Ever-Changing Nature of M&As (1): Deal Characteristics

M&As today are nothing like those of yore, and understanding the historical trends of M&A is crucial for improving acquisition decisions. This chapter focuses on changes in merger characteristics, like the large increase in the almost extinct conglomerate (business unrelated) acquisitions and their hazards, and the steep rise in acquisition prices (premia).

Chapter 3 The Ever-Changing Nature of M&As (2): Markets and Merger Sizes

This chapter continues the historical analysis of the preceding one, focusing on the growth of M&As in recent decades (numbers and volume), the increasing impact of technology acquisitions, and the perplexing deterioration in the profitability of buyers, which doesn't bode well for the success of acquisitions.

Chapter 4 Internal Development: The Alternative to Acquisitions

Practically every business capability acquired by acquisitions (R&D capacity, patents, trademarks, brands, new customers, etc.) can be developed internally by companies. There are, of course, different costs, uncertainties, and time to market involved in the choice between acquisitions and internal development, which we discuss. We document that the benefits of internal development far exceed those of acquisitions, and therefore: Don't rush to acquire businesses before you fully consider the alternatives.

Chapter 5 The Folly of the Conglomerate Acquisitions

Conglomerates—entities composed of business-unrelated units—fell from grace in the 1980s to the early 2000s because they are devoid of business logic, but were back in the past 10–15 years, particularly among tech buyers. Is this a new trend or a resumption of an old folly?

Chapter 6 Are There "Best Times" to Acquire Businesses (1)? External Opportunities

The M&A literature is replete with claims that there are opportune times to acquire businesses: buy when capital markets are hot, or when your industry peers are buying. Buy during recessions when target prices are low. We analyze empirically, using our sample of 40,000 acquisitions, the consequences of acquiring businesses during those "opportune times," and find most of them to lead to failed acquisitions. In M&As, avoid the "wisdom of the crowds."

Chapter 7 Are There "Best Times" to Acquire Businesses (2)? Internal Opportunities

We continue our examination of the alleged "good times to buy," focusing on internal opportunities, like a new CEO taking helm, or a business reorganization. We document once more that these buying "opportunities" are illusory, and establish empirically the *really* good acquisitions opportunities.

Chapter 8 Integration—The Achilles' Heel of M&A

Integrating the target with the buyer comes at the conclusion of the acquisition process, when the major players—CEO, CFO—return to their regular work. The hard and crucial integration is often left to staff and consultants. Consequently, target integration is where most acquisitions fail. To assure successful integration we provide you in this chapter an evidence-based list of "integration risk factors," like target is a foreign entity, to enable you to plan and assign the needed personnel for a successful integration and acquisition.

Chapter 9 Accounting Matters

Corporate quarterly and annual financial reports—income statements, balance sheets, and cash flow statements—are jolted by acquisitions. The consolidation of the buyer with the target's accounts changes almost everything. Items with strange names, like goodwill and in-process R&D appear on the buyer's balance sheet, and comparability with the past (like sales growth) is distorted. We explain all this in this chapter, and draw your attention to important information you can obtain from the post acquisition financial reports.

Chapter 10 Killer Acquisitions

"Prepare the gallows." Not that dramatic. A killer acquisition means that the buyer acquires, and then terminates the target to avoid competition with its own products or services. Such acquisitions aren't numerous, but they exist, and they seriously inhibit competition and innovation. We offer a better way to avoid the kill.

Chapter 11 Holding onto Losers

We provide evidence that buyers (like many securities investors) hold on to lost-case targets for too long. Unfortunately, there are strong incentives for managers to do this, but the consequences are grievous: a waste of managerial time and a diminution of the target's salvage value. We propose ways to avoid this managerial distraction and corporate loss.

Chapter 12 Means of Acquisition Payment: Cash, Stocks, or Mix? Does It Matter?

Seems simple, if the buyer has enough cash on hand, it should use it to pay for the target; if not, pay with stocks. Not so fast. Turns out that the means of acquisition payment provides investors and the target's employees with a strong message about the success likelihood of the acquisition. The choice of acquisition means of payment should therefore be considered carefully by the buyer, using our guidelines.

Chapter 13 But What If Executives Are Irrational or Self-centered?

In this and the following chapter we turn the light on the human element of acquisitions. Here we deal with proven cases where executives cater to their own needs, or follow misguided (irrational) policies, thereby harming shareholders. We focus on realigning the managerial incentives that will avoid such adverse behavior.

Chapter 14 The Human Element: Acquisitions, Executives, and Employees

Surprisingly, acquisitions, even failed ones, extend significantly CEO tenure and pay. However, the penalty for unsuccessful acquisitions is generally light. Here you have a major reason for the unusually high rate of acquisition failure. As for employees, successful acquisitions increase significantly the buyers' headcount, but the widely-touted synergies (employee efficiency gains) fail to show up in the data.

Chapter 15 Do It Yourself: Predict an Acquisition's Outcome

This is one of the most important chapters of the book. It appears at the end because it builds on many of the concepts and conclusions we draw earlier. In this chapter we provide a first of its kind 10-factor scorecard aimed at *predicting* the success likelihood of a given acquisition. A vital tool for executives and directors considering a merger candidate, and for investors asked to vote on merger proposals.

Epilogue How to Spring the M&A Failure Trap

We conclude the book by pulling together the main findings and conclusions drawn from our empirical analysis regarding the major drivers of acquisition success. What to do and not do in acquiring business.

Appendix Our Research Methodology

As advertised, our book is totally evidence-based; facts, rather than conjectures, opinions, or views. This evidence, permeating the book, is based on three pillars: a large (40,000) acquisitions sample, a comprehensive measure (indicator) of acquisition success, and a multivariate (43 factors) statistical estimation model aimed at identifying the major acquisition success drivers. Details of all this are provided in the Appendix.

PREFACE

Corporate mergers and acquisitions, often the largest investment a company makes, fail to fulfill their expectations at an alarming rate of 70–75%. You wouldn't know this grim and highly damaging fact if you just followed the uniformly upbeat and enthusiastic merger announcements made by the acquiring and acquired executives, replete with highly optimistic promises of substantial synergies (cost savings), development of revolutionary products and services, or new markets to be penetrated by the proposed merger partners. Alas, most of those statements are sheer wishful thinking and sometimes hype, designed to garner investors' support for the merger. The fact, backed by our rigorous evidence, is that most M&As fail, causing massive losses to shareholders of the acquiring companies, and serious dislocations to employees, customers, and suppliers. A wide-spread, and still growing debacle.

In this fully evidence-based book, we first empirically substantiate our contention that M&As are largely a "failure trap" and then unveil the reasons for the persistence and even increase in the disappointment from corporate acquisitions. Most of these failure drivers will surprise you. We then use a very large sample of 40,000 acquisitions, coupled with advanced statistical techniques to identify the major attributes of successful acquisitions, aimed at springing the M&A failure trap. Finally, we develop a first of its kind and easy-to-use 10-factor scorecard designed to predict the success likelihood of a proposed acquisition, to be used by executives and directors currently considering a proposed acquisition, or by shareholders asked to vote on a merger proposal. Finally, no technical or statistical knowledge is required to benefit from this book.

This book will be of considerable interest to corporate executives and directors, who will likely be involved in M&As during their career, to investors asked to vote on merger proposals or are considering investment in the acquiring companies, as well as to business professionals in general, economists, and university instructors interested in one of the most important and consequential economic event—business acquisitions.

We are grateful to Ms. Nancy Kleinrock for the outstanding and very helpful editing of this book, to Wiley's editors for guiding us through the book's publication process, and to Eli Amir, Rachel and Tom Corn, and Elizabeth Demers for helpful comments on parts of this book.

We sincerely hope that this unique and timely book will reverse the destructive path of corporate acquisitions.

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PREAMBLE

WHY SHOULD YOU READ THIS BOOK?

You probably believe that mergers and acquisitions (M&A)—often the largest investments companies make: think Exxon, paying $60.0 billion (B) for Pioneer Natural Resources in October 2023, for example—are a boon for investors and employees, leading to new revenue and profit growth for the buying enterprise. How wrong. In fact, research shows that an astounding 70-75% of all acquisitions fail to live up to expectations, at shareholders' expense, of course. Sprint, the third US wireless carrier, acquired in February 2005 Nextel, the fifth carrier, for $35.0B. Executives of both companies waxed lyrical about the merger. Timothy Donahue, Nextel's CEO declared: "The new powerhouse company has the spectrum, infrastructure, distribution, superb and differentiated product portfolio that will drive our continued success." Cost savings of $12.0B were predicted from the merger. Alas, a mere three years later, Sprint wrote off—declared a loss—$30.0B (86% of Nextel's acquisition price). This wasn't an aberration. It was more the norm.

1. The M&A Failure Trap

A few are aware of this carnage. Warren Buffet, who knows a thing or two about corporate acquisitions, having done them all his professional life, declared metaphorically:

> "Many managers apparently were overexposed in impressionable childhood years to the story in which the imprisoned handsome prince is released from a toad's body by a kiss from a beautiful princess. Consequently they are certain their managerial kiss will do wonders for the profitability of the company's [acquisition target]…. We have observed many kisses but very few miracles. Nevertheless, many

> managerial princesses remain serenely confident about the future potency of their kisses—even after their corporate backyards are knee deep in unresponsive toads."[1]

The valuation guru, Aswath Damodaran (New York University) concurs: "If you look at the collective evidence across acquisitions, this is the most value-destructive action a company can take."[2] Harvard's late Clayton Christensen, of the "disruptive innovation" fame, reported that studies have documented an unbelievable M&A failure rate of 70–80%, while KPMG, a leading accounting firm, estimated more precisely the M&A failure rate at 83%.[3]

That "not acquiring" is often better than "acquiring" companies was demonstrated empirically by a clever academic study of contested (multi-bidder) acquisitions, where the successful corporate buyers were compared with the other, non-successful bidders for the same targets. The researchers reported that the presumed "losers,"—bidders that failed to buy the target—*outperformed* the "winners" by a substantial 25–30% risk-adjusted stock returns, over a three-year post-acquisition period. The researchers aptly titled their paper "Winning by Losing."[4]

The dismal performance of M&As, both in the U.S. and abroad, whether measured by buyers' post-acquisition sales and earnings growth, or by their stock performance, didn't go unnoticed by investors. In fact, in recent decades, a company's public announcement of a planned acquisition generally triggers a significant stock price *drop*, reflecting investors'

[1] Buffet, W., 1981, Berkshire Hathaway, Annual Report. (Quoted by Melmandier and Tate, 2008, "Who Makes Acquisitions? CEO Overconfidence and the Market's Reaction." *Journal of Financial Economics*, 89 (1): 20–43).
[2] Quoted from McCaffrey, P., 2019, "Aswath Damodaran on acquisitions: Just say no," CFA Institute, February, 28.
[3] Christensen, C., R. Alton, C. Rising, and A. Waldeck, 2011, "The big idea: The new M&A Playbook," *Harvard Business Review*, March, 1–21.
[4] Melmandier, U., E., Moretti, and F. Peters, 2018, "Winning by losing: Evidence on the long-term effects of mergers," *Review of Financial Studies*, 31, 3212–3264.

dour expectations from the proposed acquisition. Thus, for example, on May 23, 2022, Broadcom announced its intention to acquire VMware for $60.0B and saw its stock price fall by 3% on the announcement day. Similarly, the stock price of Tapestry, which owns Coach, Kate Spade, and Stuart Weitzman brands, dropped by 15% on August 10, 2023, when it announced the acquisition of Capri Holdings, owner of Michael Kors, Versace, and Jimmy Choo, thereby reflecting deep investor concerns about the prudence of the acquisition and its terms.

Despite all that negativity, the pace of M&As doesn't abate; in fact, as we show in

Chapter 3, it grows. And the architects of the mergers—CEOs of the buyers and targets—are as enthusiastic as ever about the mergers' prospects, uniformly predicting enticing synergies (cost savings) and fabulous revenue and earnings growth resulting from the mergers. How can this be? What's the basis for managers' continued trust in M&As, despite their dismal, proven record? Optimism in face of destruction? That's one of the major questions we ask and answer in this book, which is fully evidence-based, using a sample of more than 40,000 actual acquisitions, analyzed by advanced statistical techniques. The answers will highly surprise you.

But we do much more in this book. We identify the *major reasons* for the success or failure of corporate acquisitions, many of which have not been highlighted or discussed in the vast extant literature and advice available on M&As. And to top it all off, we develop in Chapter 15 of this book a unique, numerical *M&A scorecard*, aimed at assessing (predicting) the potential success of a specific acquisition, for the use of executives considering a merger proposal, corporate directors overseeing managers' decisions, and investors, who

are often asked to vote on a proposed merger or wishing to make investment decisions regarding the merger partners.

Addressing these three major issues—explaining the persistence of the M&A phenomenon in spite of its harsh failure rate, identifying the major factors determining an acquisition's success, and developing a predictive numerical scorecard assessing merger consequences—should be of major interest to every businessperson, corporate manager, director, investor, economist, and business student, given the centrality of M&As in the economy and corporate success. Intriguingly, the urgency to solve the merger growth conundrum is even greater, given our following finding that acquisition consequences deteriorate over time—a matter that is reported here for the first time.

2. M&A Decisions Are Getting Worse

Do executives learn at least from their failures? *The Wall Street Journal* thinks so, quoting merger advisers: "Companies can get better at doing successful mergers and acquisitions."[5] Perhaps they *can*, but they don't. M&As defy the universal *learning curve rule*: Rather than benefitting from experience and improving their M&A decisions and consequences, executives' acquisition decisions are in fact *getting worse* over time. "Unlearning," rather than learning. Using likely the largest sample assembled for M&A research—more than 40,000 deals conducted over 40 years[6]—along with a comprehensive

[5] Dummet, B., 2023, "It's far from a sure thing," *Wall Street Journal*, September 17.

[6] There were, of course, many more M&A deals over the past 40 years than 40,000. As we explain later, for purposes of our research we required for many of our tests the acquiring firms to be *publicly traded* so that we could observe their stock prices (investor sentiment). This eliminates from our sample acquisitions by private companies. The target companies in our sample aren't restricted to public firms. Our sample, though, while restricted, contains most of the large and economically consequential deals performed during the past 40 years.

merger success measure that we developed, reflecting both the financial (sales and gross margin growth) and market (stock returns) dimensions of acquisition success, we found that the M&A success rate over the past 40 years was roughly one-out-of-three, falling recently to one-out-of-four, largely in line with previous research.[7]

Average M&A failure rate increases

80%

60%

55%

M&A failure rate (%)
75%

50%

y = 0.523+0.0044x
R^2 = 0.414

45%

70%

40%
1981 1996 1991 1996 2001 2008 2013 2018

Year of acquisition

(x stands for year)

65%

Figure 1. The increasing M&A failure rate over time[8]
(The dots reflect average annual M&A failure rate for the period 1980–2018, excluding 2006–2007, plus a regression trendline.)

What we find startling, however, is the “reverse learning” (forgetting?) phenomenon exhibited in Figure 1, which portrays the average annual failure rate of M&As. The figure

[7] We explain the details of our measure of firms’ M&A success rate in the Appendix at the end of the book. Briefly, we define successful M&As as those meeting three requirements: the acquirer’s three-year post acquisition, industry-adjusted sales growth is positive and/or gross margin growth is positive, the stock price of the acquiring firm doesn’t decrease post-acquisition, and the buyer experiences no goodwill write-off in the post-acquisition period.

[8] Figure 1 ends in 2018 because our “acquisition success” measure (see Appendix) includes the acquirer’s sales and cost of sales growth, as well as stock returns for the subsequent three-to-four years, which extends to 2022 for the year 2018.

shows clearly that the merger failure rate is *trending upward*: From typical 50–60% acquisitions failure rates in the 1980s and 1990s, the failure rate (buyers’ post-acquisition financial and stock market performance lagging pre-acquisition performance) rose to 60–75% in the 2000s (for the sake of conservatism we eliminated from the figure the financial crisis years, 2006 and 2007, due to unusually high acquisition failure rate of 85–90% in those years). The regression trend line in the figure, reflecting the overall failure pattern, is significantly upward-sloping, indicating the decreasing quality of corporate M&A decisions over time.

And yet, one hears from time to time, particularly from investment bankers and M&A consultants, that corporate acquisition decisions have been improved over the past decade or two.[9] So here is out of the mouths of (not babes, but) corporate managers, their view of the quality of the M&A decisions they have made in the past 20 years. Figure 2 presents both the number and total volume of annual "goodwill write-off" (impairments) declared during 2003–2022. A goodwill write-off (fully explained and demonstrated in Chapter 9) is a usually very large income statement expense and asset value decrease, reflecting a total or partial loss of a company's past investment in a business acquisition. In other words, it's managers' public admission that an acquisition failed.[10] Figure 2, derived from public companies' financial statements, shows anything but an improvement of corporate acquisitions: From 10% of all companies with goodwill on their balance sheet (practically every corporate acquisition generates a substantial amount of goodwill on the buyer's

[9] For example, *Wall Street Journal*, September 17, 2023, ibid.
[10] For example, in March 2024, Walgreens reported a $5.8 billion write-down in the value of its investment in primary care clinic chain VillageMD. Consequently, Walgreens' net loss in the second quarter was $5.9 billion, compared to net earnings of $703 million in the same quarter a year earlier.

balance sheet) declaring a write-off loss in 2003 (316 firms), the percentage of write-offs went steadily up to 20%, 564 firms, in 2022 (see top line and left axis). A doubling! of the annual percentage of corporate buyers declaring failed acquisitions. As to the amount of investment losses imposed on shareholders, the bars in Figure 2 (and the right axis) show that the total write-offs (losses) increased from $30 billion to a staggering $190 billion a year between 2003 and 2022. The average amount of goodwill write-off per firm (not presented in the figure) more than tripled during this period, from $104 million to $335 million.[11]

Percentage of firms writing off goodwill (left axis) and amount of goodwill write-off ($ billion, right axis): 2003-2022 (ex. 2008-2009 & 2020-2021)

Percentage of firms with goodwill declaring write-offs (%)
$60
5%
25%
$200
Total amount of annual goodwill write-off ($ billion)
$180
20%
$160
$140
15%
$40
0%
$120
$100
10%
$20
2003 2004 2005 2006 2007 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2022
$80

Amount of goodwill write-off ($ billion, right axis) Percentage of firms writing off goodwill (left axis)

Figure 2. The Percentage of Firms with Goodwill from Acquisitions Writing off Goodwill, and the Amount of Goodwill Write-offs ($ billion)

[11] Since goodwill write-offs often lead to reported losses and negative investors' reaction (stock price decreases), corporate managers are understandably very reluctant to declare this event. It is thus likely that goodwill write-offs, reflecting failed acquisitions, are postponed for considerable time by some managers.

We really find it hard to reconcile Figure 2's grim data, publicly reported by the acquiring companies, with a view that the quality of corporate acquisitions improved over the past two decades.[12]

Finally, readers who may not be impressed by our statistical evidence indicating the poor and worsening record of corporate acquisitions should read the following excerpts from a recent *Wall Street Journal* front page article:

"**Big Media Deals Aren't Living Up to the Hype. Warner's CEO Wants to Do Another One**.

> Streaming is losing money. Box-office receipts are underwhelming. Cable networks are dying. The entertainment industry is badly in need of a plot twist—and Warner Bros. Discovery boss David Zaslav is ready to supply one in the form of yet another blockbuster media merger. Zaslav met this week with Paramount Global CEO Bob Bakish and discussed the possibility of a deal between the media giants…. The logic of a Warner-Paramount pairing: overlapping cable networks and studio operations would translate into billions in savings. And Warner's Max streaming service would be supercharged with content…. If this story line sounds familiar, it's because it's a rerun played many times over the past decade. Giant mergers have been the response to virtually every big problem confronting the entertainment industry's titans. But so far, the results from these big deals aren't impressive. 'These things just extend the runway, but they don't change the destiny of where they are going,' said Andre James [Bain & Co.]…. Many media observers and analysts are skeptical about the merits of a Warner-Paramount deal. If the goal is a partnership in streaming, there are other models to explore—a bundled offering of services at a discounted price, or a joint venture—before jumping into an all-out merger."[13, 14]

[12] There is one ray of light in this darkness. We find that the success of acquisitions improves slightly for companies conducting multiple acquisitions. However, the number of companies making multiple acquisitions is very small. For example, during 2022, 12% of the public companies made one acquisition in the previous three years (2019–2021), 4.5% of the companies made two acquisitions, and only 2.6% of the companies made three or more acquisitions in the previous three years. The latter is obviously too small a number of corporate buyers to significantly impact the overall quality of corporate acquisitions. [13] Flint, J., Toonkel, J., and A. Sharma, 2023, "Big media deals aren't living up to the hype. Warner's CEO wants to do another one." *Wall Street Journal*, December 21.

[14] Reflecting on the poor records of past M&As by big media firms and the lack of merits in a Warner Bros. Discovery–Paramount merger, investors of *both companies* reacted *negatively* to the news of the merger talk, sending the share price of *both companies* down by nearly 30% over the subsequent three months. Among other issues, investors were concerned that Warner Bros. will have to borrow billions of dollars of debt to

Thus, one bad giant deal is chasing another in a never-ending drama–farce, at shareholders' expense, reminding one of the tourist who saw years ago in New York harbor the magnificent yachts of J.P. Morgan, John D. Rockefeller, and other finance and industry titans, and asked innocently: "Where are the customers' [investors'] yachts?"

This surprising finding of bad and worse acquisitions indicates one of two things: either corporate executives and directors, with their highly paid advisers, are getting worse over time at acquiring companies, or that the personal acquisition motives of executives (higher compensation, empire building, and personal risk diversification, see Chapter 13) are getting stronger, overriding shareholders' interests. We will further explore this intriguing issue in a later chapter, but as for now the data speak loud and clear: As acquisition numbers and value increase, merger consequences are getting worse. No wonder investors are so antsy when learning about an impending acquisition and often dump the buyers' shares. Figures 1 and 2 obviously strengthen the need to fully understand the merger phenomenon and learn how to improve its consequences, which we do in this book by focusing on the following central issues.

3. The Central Issues Explored in This Book

(A)What explains the very high and increasing acquisition failure rate?

Like postmortems informing doctors how to improve health treatments, understanding the reasons for past acquisition failures is crucial to enhance the merger

acquire Paramount, which will further increase its already high debt level ("Why buying Paramount Global won't be easy," *Wall Street Journal*, February 1, 2024). Amid these heightened investor concerns and management realization of the lack of a clear pathway of integrating their businesses, Warner Bros. Discovery and Paramount discontinued their merger conversations in late February 2024, merely three months after the initial talk (Sherman, A., "Warner Bros. Discovery halts merger talks with Paramount Global, sources say," *CNBC*, February 27, 2024).

success rate. The failure of a complex and time-consuming process like a corporate merger cannot, of course, be explained by one, overall reason. Life is complicated. Therefore, armed with a comprehensive measure of acquisition success (see Appendix), we analyzed more than 40,000 acquisitions worldwide to identify the major reasons for mergers' success and failure. Obviously, given the very high acquisition failure rate, we first focused on the reasons for merger failure. Following, in brief, are the major causes we identified for the persistent acquisition failure. In the book, we elaborate, with real-life examples, on those major causes for failure.

Insufficient attention to the acquisition alternative—internal development. Faced with lagging sales and earnings, chronically missing analysts' consensus earnings estimates, expiring patents, or a competitor's entry, and goaded by commission-hungry investment bankers, executives often panic and feel *they have to act* promptly and boldly, by "doing a big acquisition" (see the cases of Teva Pharmaceutical and Hewlett Packard in the next chapter). Sometimes an immediate corrective action has to be taken, but oftentimes, with some planning ahead, the *internal development* of new products and services and the restructuring of business processes are the better solution. New products can be developed internally, rather than bought, production facilities can be built in-house, and new markets penetrated by expanding and improving the existing salesforce. As you will later see (Chapter 4), our calculations show that the growth benefits of internal development are *substantially higher* than those of acquisitions. Surprising but true. Yet, internal development is rarely seriously considered as an alternative to acquisition. A panicked acquisition decision usually ends up with overpayment for the target and getting a business

that is a strategic misfit. This overpayment and lack of strategic fit are among the major reasons for the observed high acquisition failure rate.

"Now is the time to buy." A second cause for acquisition failure is the widespread belief by CEOs that they can *time acquisitions* (akin to how investors try, and mostly fail, to time the market). This is often a chimera. For example, some say that when capital markets are up, better yet sizzling, you should buy a business because your shares (the acquisition currency) are high and perhaps even overvalued. Other prefer down markets, because target shares are depressed and you can acquire "bargains." Advisors will tell you that when your competitors are buying you don't want to be the last standing with an empty bag. Thus, there is no scarcity of presumed "good times for acquisition." However, our comprehensive analysis, presented in Chapter 6, shows that most acquisitions that were made allegedly in "good times" actually failed. There are few good acquisition times and we point them out, but, generally, rather than looking for good times you should look for good targets; we also point those out.

The dire consequences of overconfident CEOs. Jeff Immelt, at General Electric, reportedly made 380 acquisitions while at the helm of the company.[15] Many of those acquisitions weren't a good use of shareholders' money. You will read in Chapter 13 how *overconfident CEOs*, those overstating (in their own mind, or publicly) the expected benefits of their decisions, can be identified, and that these executives—about 30% of all CEOs—are typically serial acquirers. Tracking the consequences of their acquisitions, we found that they are far from impressive. Being a gung-ho CEO isn't a match for a thoughtful and careful

[15] Gara, A., 2017. "For GE's Jeff Immelt, hundreds of deals and $575B didn't yield a higher stock return," *Forbes*, June 15.

corporate leader. So, here you have another, quite widespread reason for the growing acquisition failure rate—the overconfident CEO.

Conglomerate (unrelated) acquisitions. Amazon buying Whole Foods, Google acquiring Motorola Mobility, or Intel purchasing Mobileye, are examples of conglomerate (core unrelated) acquisitions. They were popular in the 1960s and 1970s and then fell from grace due to massive failures. Surprisingly, 10–15 years ago, conglomerates rose from the ashes, particularly among tech companies. As you'll see in Chapter 5, most of these conglomerate acquisitions are doomed to fail, in our opinion, because they lack business logic—shareholders buying the shares of the two merger partners achieve the same risk diversification as the acquiring company—and managing an enterprise outside a company's core competency is particularly difficult. The considerable number of conglomerate acquisitions made during the past decade or two have contributed significantly to the growing merger failure rate that we documented in the previous section.

Holding on to losers. An astute investor once said: “I made most of my money not from purchasing securities, but from selling them on time.” The selling of an investment, particularly when it’s not doing well (“out of the money”), is a wrenching decision for managers. Hard to admit failure to yourself, and even harder to admit it to investors when the loss from the sale of a losing investment has to be reported in the income statement. Buyers’ CEOs always hope that yet another reorganization, a change of target management, or the hiring of new consultants can prevent the target’s failure, avoiding the investment write-off and the negative shareholder reaction. But this rarely happens. Rather, holding

too long to failing targets drains executives’ time and reduces the market value of what remains of the target. Big losses are often the result of retaining a failing target too long.

Increasingly weak buyers. You read this here for the first time. Our sample analysis has revealed that the pre-acquisition performance of the sample buyers—as measured by their pre-acquisition three-year average return on assets (ROA)—has been deteriorating over time. Stated differently, buyers are getting financially weaker, and that’s likely a major reason for the acquisitions’ failure to revive their performance and growth. Financially weak buyers cannot afford to acquire quality targets, they have to borrow heavily to finance the acquisition, and they aren’t attractive to the target’s top talent to keep working for them. All reasons for the acquisitions’ failure.

Summing up, there are, of course, additional reasons for acquisition failures that we investigate in the book: integration difficulties, cultural clashes, pre-acquisition target fraud and misrepresentation (as in HP buying Autonomy, discussed in the following chapter)—but the six failure causes listed above account for the lion's share of the massive M&A failure trap. Later in the book we elaborate on each failure cause with real-life examples and provide suggestions for how to avoid them. With this, we accomplish the first major objective of our book: answering the perplexing question of why so many M&As fail and exposing the reasons that the failure rate keeps rising. But this isn't just a book about postmortems. It's mainly about how to *improve* the acquisition decision. So, let's move to the second major book objective.

(B)How to enhance the likelihood of an acquisition success?

There is no scarcity of M&A advice in the business literature and social media: You can find books by CEOs titled "What I learned from doing acquisitions"; numerous M&A advisors and consultants publish lists of "5 (or10 or 15 or …) things to do to assure merger success"; economists report research results on issues like the hazard of CEO over optimism, and the disregard of cultural differences between buyer and target employees; and board members inform on "how to prevent CEOs from committing acquisition failure." The usefulness of such advice is limited. All those M&A architects and experts recounting their experiences have, in fact, very limited M&A exposure (being typically involved in less than a handful of acquisitions), done under very special circumstances, like abnormally low interest rates, or in the wake of a financial crisis. There isn't much one can generalize and learn from these public sources. As for investment bankers, their advice is often far from objective, given the fat fees they expect from an acquisition.

We use in this book an entirely different approach to improve acquisitions, whose main elements are:

Comprehensive evidence*:* We assembled for this book a very large sample of more than 40,000 merger cases involving publicly traded buyers (the reason: some of our measures require share prices) from both the U.S. and abroad. Our targets are firms of all sorts, both public and private. Our sample covers the past 40 years. That's our database from which we draw inferences about the major determinants of M&As' success and failure. Our approach is thus *fully evidence-based*; facts rather than conjectures, anecdotes, or some limited experiences.

A multi-dimensional success measure*:* A search for M&A success determinants requires a well-defined *success measure*, indicating what constitutes a winning acquisition. The M&A literature offers a bewildering array of success indicators: rising buyers' stock prices when the merger is announced, sales or earnings growth over three-to-five years post-merger, or new products or services emerging from the merger. Each of those measures captures an aspect of acquisition success, yet misses other success dimensions. We, in contrast, include three critical success dimensions in our measure. Specifically, we count an acquisition a success if it fulfills *all* of the following requirements:

(a) a positive buyer's sales growth and/or gross margin increase, over a three year period after the acquisition, relative to its industry average growth (a financial performance dimension);

(b) the buyer's share price didn't decrease over the three post-merger years (capital market performance); and

(c) there was no accounting write-off of goodwill or of the merger investment (loss declaration) during the three post-acquisition years (an accounting perspective).[16]

Our acquisition success measure thus captures simultaneously the financial, capital market, and accounting aspects of the acquisition. We aren't aware of any other M&A study that uses such a comprehensive success indicator. As for our sample, 36% of all acquisitions were successful by our measure over the 40 sample years. During the past couple of decades though, the success rate declined to 30%. Thus, only three out of ten

[16] For the full details of our measure of acquisition success, see the Appendix at the end of the book.

acquisitions currently fulfill their expectations. We also use state-of-the-art statistical analysis as follows:

An advanced statistical methodology: Most acquisition studies done by consultants, advisers, or financial institutions use simple correlation analysis, like the one we recently saw claiming that the larger the number of acquisitions a company makes, the higher its acquisition success. This conclusion was derived from a correlation between the buyer's number of previous acquisitions and its post-acquisition share price changes. Simple correlation analyses, however, suffer from several serious statistical shortcomings, such as the "missing correlated variables" problem. Specifically, in the study mentioned above, the missing correlated variable may be the company's periodic cash flows. Firms flushed with high and increasing cash flows tend to acquire more quality businesses *and* their share price rises quickly. So the real relationship may not be between the number of previous acquisitions and share price growth, as the consultants claimed, rather between operational success (high cash flows) and *both* increasing share prices and number of acquisitions made. Accordingly, high cash flows may be the real driver of acquisition success, not the number of previous acquisitions. Statistics is an art as much as science.

In this book we use a multivariate regression analysis, which is the gold standard of economic and finance research (see Appendix for details). In fact, we *simultaneously* estimate the effect of over 40 possible acquisition success determinants on the actual merger success. Those determinants include, among many others:

– Target is a foreign entity
– Acquisition payment is in the form of stocks
– Buyer and target are business-wise unrelated (a conglomerate merger)
– Target is small relative to buyer

– Target is a technology company
– Target is a losing enterprise
– Acquisition was made during rising capital markets
– Acquisition premium is high
– Merger is horizontal (the partners are business related)
– Buyer has considerable acquisition experience.

Our 40 variables model makes it unlikely that "missing variables" affect our inferences and recommendations, and enhances the generality and usefulness of our findings. Thus, our substantially larger sample, more comprehensive acquisition success measure, and improved statistical methodology places this book on a substantially higher level than the available M&A literature. But we provide still more in this book:

(C) A predictive merger scorecard

The third theme of this book (after explaining the reasons for the very high and increasing acquisition failure rate and identifying the drivers of acquisition success) is the development of a predictive merger scorecard. We use our 40-variable acquisition success model to build a unique "merger scorecard," done here for the first time, to assign points to each acquisition success determinant (e.g., target is a profitable entity), and generate a summary score for a specific acquisition. This predictive merger score can be used by executives and board members, in comparison with the average scores of past acquisitions, to determine the likelihood of success of a proposed acquisition, and by investors asked to vote on an acquisition. In other words, our detailed acquisition scorecard provides decision makers with a numerical forecast for an acquisition's success. We cannot overstate the importance of this new tool for people dealing with M&As. We deferred the development and exposition of the scorecard to Chapter 15, because its full understanding requires

many of the concepts, findings, and recommendations we develop in the preceding chapters. Finally,

(D)A spotlight on the human element: CEOs and employees involved in M&As

We conclude the book with a thorough examination focused on the main acquisition players—the buyers' CEOs and employees. This human resource aspect of M&As is rarely discussed in the acquisition literature. We empirically address questions like, are CEOs compensated for acquiring businesses, irrespective of their success or failure? Does acquisition failure hurt the CEOs' career and tenure? What happens to the buyer's and target's employees after the merger? In short, we examine here the human element involved in M&As.

4. Finally, Who Should Read This Book?

Everybody, of course. Seriously, if you are a corporate executive or a director considering a business acquisition, you will learn from this book how to avoid the major pitfalls dooming an acquisition, such as a conglomerate merger. You will also find out the major changes you should make in the acquisition terms, like substitute cash for stock payments, to improve the acquisition's success prospects and its reception by investors. Importantly, we also provide readers with a unique, predictive acquisition scorecard that will enable them to compare the prospects of the acquisition considered with those made by your peers. This information will enable decision makers to avoid the devastating "M&A failure trap."

If you are an investor asked to vote on an acquisition proposal, or consider whether to buy or sell the shares of the proposed merger parties, our book highlights for you the major acquisition and target attributes—like a target that is a foreign entity, a large debt raised to finance the acquisition, or the target sustaining a series of pre-acquisition losses—that will likely cause an acquisition failure. Our acquisition-specific scorecard will summarize for you the likelihood of an acquisition's success.

If you are a business professional, an economist, or just someone who is generally interested in economic issues and is perplexed by the frequent news about large merger failures or massive goodwill write-offs, our book will clarify you the reasons for those, often colossal, managerial acquisition mistakes and how they could have been avoided.

Lastly, if you are a business school or economics university instructor, some of your courses likely deal with various M&A issues, such as the M&A role in business strategy, the financing of corporate acquisitions, or the accounting for mergers. Our book will be an easily accessible and readable reference for your students.

So, whoever you are, please join our following M&A journey to success.

Chapter 1

Appetizer:

The Good, the Bad, and the Ugly

This “appetizer” chapter is aimed at providing you with a panorama of intriguing and highly consequential acquisitions cases concluding with important inferences about acquisition success and blunders. It provides a triple-case, bird’s-eye view of the M&A scene: From one of the best acquisitions ever made to one of the worst, through the ugly and embarrassing.[17] We will draw from these cases certain preliminary—yet very interesting—conclusions regarding the factors affecting the consequences of corporate acquisitions. We will also indicate the limits of such individual case analyses, so popular in the media and business school classes. These limitations create the need for a rigorous, large-sample research into the factors contributing to the success and failure of corporate acquisitions to be reported throughout this book. Bon appétit.

1. The Good: Google Snaps YouTube and Enters the Video-sharing Space

It’s October 2006. The world is stunned by North Korea’s first nuclear test, while the tech community is startled by a different “bomb”: Google announces the acquisition of the video-sharing startup company YouTube for a then eye-popping price of $1.65B—its largest purchase yet.[18] Back then (2006), multi-billion-dollar tech acquisitions, particularly of a

[17] The “Good, the Bad, and the Ugly" was the title of a 1966 hit movie directed by Sergio Leone and starring Clint Eastwood (*Wikipedia*).
[18] Allison, K. and A. van Duyn, 2006, “Google to buy YouTube for $1.65bn,” *Financial Times*, October 9.

one-year-old enterprise, were unheard of. Pundits were quick to proclaim that Google vastly overpaid for YouTube; Mark Cuban reportedly called the acquisition, burdened by various legal liabilities for content used, “crazy” (Luckerson, 2016).[19] The overpayment claims were corroborated a while later by Google's own CEO who admitted that YouTube was acquired with a hefty premium (Sandoval, 2009).[20] As you'll see later on in the book, contested (multi-bidder) acquisitions, like YouTube, often end up with the winner overpaying for the target—sometimes leading to a disastrous "winner's curse."[21] And YouTube's acquisition was indeed hotly contested—no less than Microsoft, Viacom, Yahoo, and the News Corporation, vied for YouTube's favors. Google's edge over other suitors was, in part, its commitment to retain the target's separate identity and managerial independence after acquisition.

Undeterred by criticism, executives of both Google and YouTube praised the deal effusively: Eric Schmidt, Google's CEO, proclaimed: "The YouTube team has built an exciting and powerful media platform that complements Google's mission to organize the world's information and make it universally accessible and useful." Google's co-founder, Sergey Brin, added: "We think one of the keys to comprehensive search experience will be video. On the whole, it is hard for me to imagine a better fit with another company." Speaking for the acquisition target, YouTube's co-founder, Chad Harley claimed: "By joining forces with Google, we can benefit from its global reach and technology leadership."

[19] Luckerson, V., 2016, "A decade ago, Google bought YouTube—and it was the best tech deal ever," *The Ringer*, October 10.

[20] Sandoval, G., 2009, "Schmidt: We paid $1 billion premium for YouTube," CNET, October 6.

[21] The "winner's curse" is a phenomenon common in auctions where the ultimate winner in a contest is the one offering the highest price, often an overpayment, relative to intrinsic value, thereby acquiring a "cursed asset." (See Roll, R., 1986, "The hubris hypothesis of corporate takeovers," *Journal of Business*, 59: 197–216, for application of the winner's curse concept to M&As.)

This is typical of M&A announcements: Irrespective of facts and circumstances, executives of both the buyer (acquirer) and the target (acquired) companies invariably wax lyrical about the acquisition, repeating ad nauseam the mantras of extraordinary *strategic fit*, large expected *synergies*, and hefty *value creation* for investors. After all, in many cases executives need shareholders' approval for the merger, and a bump in the buyer's stock price upon announcement will look good too. Yet, given the evidence that most mergers disappoint, such uniform executives' praises are often sheer hype, laced with heavy wishful thinking, and aimed at affecting investors' acquisition perceptions, for which executives rarely pay a price when the acquisitions disappoint.[22] In general, executives' proclamations around merger announcements should be heavily discounted by investors.

In retrospect, YouTube's acquisition was a resounding success; some even call it the best tech acquisition ever (Luckerson, 2016). It is, however, difficult to accurately assess the degree of success, since Google—now Alphabet—while maintaining YouTube as a separate entity, had steadfastly refused to disclose key valuation metrics, like YouTube's contribution to Google's revenues and earnings. In 2020, however, under heavy pressure from analysts, Alphabet's CEO, Sundar Pichai, revealed for the first time that YouTube's 2019 revenues were $15.2B—still a partial figure (missing, for example, are subscription revenues from YouTube's TV). Applying a market multiple of six-to-seven times to YouTube's revenues—typical of successful social-media companies, like Twitter of past—yields a YouTube's conservative, stand-alone value estimate of about $100.0B—an astounding return on a $1.65B investment. Also impressive is YouTube's enormous and

[22] The number of class-action shareholder lawsuits alleging false acquisition promises and unmet synergies and value enhancement are very small, however, bolstering executives' acquisition hype.

continuously increasing footprint: over two billion registered users—a quarter of the world's population—growing from 50 million at time of acquisition (Sorkin and Peters, 2006).[23] YouTube is second only to Facebook (and perhaps TikTok too) in the number of users, with a constantly growing library of billions of videos, making it a leading player in the social network arena.

The dire concerns at acquisition of massive litigation against YouTube by original video and content owners also didn't materialize, as YouTube's executives smartly managed to avoid the most disruptive litigations and frictions with content owners.[24] And YouTube keeps evolving: It recently added, for example, YouTube Red, an ad-free paid streaming subscription service, pitting it against the likes of Netflix and Hulu. All this in addition to various efficiencies and synergies that Google receives from YouTube. So, this acquisition was definitely a "good" one, to put it mildly.[25]

But wait, is YouTube really a merger (like in merging, combining)? It was definitely an acquisition by Google, but did the operations of the two entities consolidate for *mutual benefit*? Were there substantial synergies involved? This is an interesting question, since corporate acquisitions are generally aimed at one of two objectives: to enhance the buyer's short-to-medium term operating performance (like Hormel Foods' acquisition of Planters in 2021), or to transform its business model for the long-term (e.g., Olivetti—a business and office products maker—acquiring in 2003 Telecom Italia). YouTube's acquisition didn't

[23] Sorkin, A. and J. Peters, 2006, "Google to acquire YouTube for $1.65 billion," *New York Times*, October 9. [24] YouTube's executives developed good relationships with major content providers—signing deals with CBS Programing, Universal Music Group, and Sony BMG Music, among others, enabling it to use their videos. [25] Interestingly, investors didn't have a clue at the time of the acquisition announcement about the subsequent success of YouTube's acquisition. Google's stock price following the acquisition announcement (October 9, 2006) *decreased* by 0.5%.

fulfil either target. It obviously improved Google's consolidated financial results, but it didn't materially change Google's core business (information search).[26] YouTube's acquisition seems more like the investments made by Warren Buffett for Berkshire Hathaway over the years, or by private equity firms rather than regular mergers. This distinction between mergers and investment in unrelated businesses operating independently after acquisition is important because such "independent" acquisitions don't raise the thorny issues of integration and "killer acquisitions," to be analyzed later in the book. Nevertheless, YouTube was definitely a smashingly "good" acquisition. Time to consider a "bad" one.

2. The Bad: Teva Buys Actavis and Loses Its Footing

"Generic-Drug Makers Are Too Frail to Cure," warned *The Wall Street Journal* on June 2, 2019, explaining: "The calamity engulfing generic-drug stocks has many causes, but they are all made worse by one simple malady: *too much debt*…. Years of weak performance for these companies has lately broken into share-price crisis…. All of this would be far less scary to investors if generic-drug makers had managed their balance sheets more carefully in recent years. Instead, they *borrowed money for splashy acquisitions at high prices*. For instance, Teva bought Allergan's generic business for about $40 billion in cash and stock in 2016."[27] (Emphasis ours)

Sadly true. In July 2016, Israel-based Teva Pharmaceutical Industries Ltd, the world's largest generic drug manufacturer at the time, acquired Allergan's generic business

[26] In fact, attempts by Google to use YouTube's subscribers' data raised serious concerns among users and were therefore stunted.
[27] Grant, C., 2019, "These drug companies are too frail to cure," *Wall Street Journal*, June 2.

named Actavis Generics for $40.5B, paid for it mostly with borrowed money. The acquisition, not surprisingly, was praised by Teva's CEO as "Creating a transformative generic and specialty company well positioned to win in global healthcare." Left unexplained was how will adding one generic drug producer (Teva) to another (Actavis) be "transformative"? Businesses transform by changing radically their business model, not by piling on same ones, and in this case lagging businesses. Interestingly, investors at the time of the acquisition announcement didn't question the "transformative" and other hyped claims, as Teva's stock price rose sharply upon the acquisition announcement (July 27, 2015). As P. T. Barnum said: "There's a sucker born every minute." Subsequent events, sadly, made the fiction of this "transformation" clear to all.

In fact, Actavis' acquisition seemed more like a desperate move than a planned transformation. Prior to the acquisition, Teva faced headwinds from two directions: First, competition among generic-drug manufacturers intensified by many new entrants and by the FDA speeding up generic approvals, leading to substantial sectorial product price declines. Second, the imminent patent expiration of Teva's major proprietary (non-generic) drug Copaxone (multiple sclerosis), hauling in $4.0B annual sales, which was sure to create a deep hole in Teva's revenues and earnings. Like many directors facing similar predicaments, Teva's board members believed that "a big acquisition" will be the only solution to the problem. Erez Vigodman was specifically hired as CEO to do just that: a major acquisition.

This, of course, is a familiar scenario that you'll see playing out again and again in this book, and much more frequently in the business world: When a company's sales and

earnings stall, leading financial analysts and active investors to clamor for a growth restart, then managers, egged on by commission-hungry investment bankers, opt for the seemingly quick solution: a big acquisition. The alternative: a serious strategic restructuring, including a business model change—like IBM's 1990s highly successful transformation from hardware to software—seems too slow and timid, and is rarely seriously considered. A "bold acquisition" has the added advantage of shifting investors' attention from the company's deteriorating performance to the acquisition, and is giving a temporary boost to the company's top line (revenues) from aggregating the sales of the merger partners.

Regrettably, the main consequences of such hasty acquisitions are often a significant overpayment for the target and a serious strategic misfit. In Teva's case, the misstep was adding more generic capacity just when the sector was suffering from both falling demand and prices. Since when are two losers better than one? That was made even worse by the addition of a huge debt to finance the acquisition. All of these problems afflicted Teva's acquisition of Actavis.

In Teva's haste for a big deal, Actavis was, in fact, a second-best. Teva's first choice was Mylan Pharmaceuticals, a large generic and specialty drug company. But Mylan defended itself vigorously and evaded the clutches of Teva.[28] Like a scorned lover, Teva looked feverishly for an alternative and settled for Actavis, paying 83% of the acquisition

[28] In the fierce public exchange between Teva's and Mylan's executives, the latter's CEO wrote: "Bringing Teva's dysfunctional culture to the region could disrupt the core of our business, result in the flight of key talent…. This challenged culture at Teva is, we believe, a direct result of a board of directors that refuses to change, lacks adequate global pharmaceutical experience, and consistently meddles in company operations. This is the same board that was described like a nuthouse…." (Hagai Amit, "Teva Cuts 14,000 Jobs," *Haaretz,* December, 17, 2017). Surely a gross exaggeration by Mylan, even defamatory.

price ($40.5B) in cash it had to borrow. This raised Teva's debt to $35.0B—an unsustainable burden for a company with only $1.6B earnings in 2015.

Irrespective of the adverse circumstances, the glowing merger forecasts made regularly by buyer's executives were also prominent in Teva's acquisition announcement: Cost synergies and tax savings from Actavis' acquisition were estimated by Teva's management at $1.4B annually, and the following year (2017) revenues and EBITDA were predicted to be $26.0B and $9.5B, respectively. Gullible investors fell for the enticing acquisition prospects, as Teva's share price rose 16%! upon the acquisition announcement, on July 27, 2015. This is yet another example of investors being generally clueless about a merger's prospects and largely believing managers' hype.

Reality, however, was far different: Actual 2017 revenues were only $22.4B and EBITDA was $6.7B only. Worse yet, Teva's operations didn't improve in the following years. In fact, in 2018, revenues fell sharply to $18.9B and earnings turned to a *loss* of $2.47B. Not unexpectedly, Teva's share price fell from $51.63 in July 2016 to $9.56 on January 2, 2020, in the pre-Covid market (an 81% decrease). An unmitigated disaster. The departure of Teva's CEO in 2017 was thus unavoidable.

To be fair, the acquisition of Actavis wasn't the sole trigger of the carnage at Teva. The continuous softening of generic prices and the loss of exclusivity of its proprietary best seller drug Copaxone took their toll, as did various legal issues concerning Teva's opioid selling in the United States and alleged price fixing, but Actavis' failed acquisition and the burden of the huge debt owed were undoubtedly the major factors in Teva's downfall, from which it didn't fully recover until this writing.

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Later, there were some mildly good news too: two new Teva's drugs were approved by the FDA in 2017 and 2018 (Austedo and Ajory), and in 2023 Teva partnered with Sanofi to develop an immunology drug (a skeptical market, however, reacted with Teva's price dropping 4.3% at the news). But as *The Wall Street Journal* article quoted above noted: "All of this would be far less scary to investors if generic-drug makers had managed their balance sheets more carefully in recent years. Instead, they borrowed money for splashy acquisitions at high prices." The large Actavis acquisition rendered Teva particularly frail: As recently as July 2023, Teva's total debt was still $21.0B with a razor thin cash flows from operations of $1.6B in 2022. We emphasize the large debt issue because, as you'll see later, a heavy debt is a common drag on the performance of acquisitions.

Summarizing, Teva's 2015 decision to double-down on generic-drug operations by purchasing Actavis was evidently the wrong thing to do, particularly in the face of relentless downward pressure on generic drug prices. In retrospect, Actavis was far from transformative, and did not contribute materially to Teva's operations. It would have been far better for Teva to avoid the "big acquisition" in 2016 and spend at least part of Actavis' price tag ($40.0B) on developing proprietary drugs to replace the patent-expiring Capaxone or on an acquisition of a specialty (proprietary) drug or a biotech company to bolster Teva's product development. That's where the big money is rather than in generics. But the pressure in 2016 to quickly do "a big strategic move" was apparently irresistible. In our "good, bad, and ugly" classification, Teva's acquisition of Actavis was undoubtedly *bad.*[29] But there is worse.

[29] In a sad postscript, in February 2022, Warren Buffett finally dumped all of his Teva's stock at a loss. Apparently, even famously patient investors like Buffett have a limit.

3. And The Ugly: Hewlett-Packard Picks Up Autonomy and Almost Loses Its Own

Here is a familiar scenario: A storied company hits the breaks—sales slow down, the pipeline of new products/services dries up, and earnings disappoint. Investors and analysts get antsy. To make things worse for managers, activist investors are circling the wounded company, calling for strategic and even managerial changes. Hewlett-Packard (HP) had faced all this in the early 2000s. The company was founded in 1939 by the legendary William Hewlett and David Packard, Stanford-educated electrical engineers, who literally started operations in a Palo Alto single-car garage, thereby initiating the legend of garage or basement startups. HP subsequently emerged from the garage to grow into a worldwide, dominating technology enterprise with $126B annual revenues and 324,000 employees in 2010. The company was a major player in the personal computers, printers, copiers, scanners, and sophisticated tech equipment fields, with a reputation for innovation and high product quality. (One of us was an early and proud owner of an advanced HP, pre computers, pocket calculator—the top of the market at the time.)

Alas, in the 1990s, most of HP's products were low-margin hardware boxes (printers, copiers) with little if any growth. Obviously, time for change. Carly Fiorina was hired in 1999 to regenerate growth by innovation, but after trying mightily to innovate, she ended up buying another large, low margin, hardware company, the personal computer manufacturer Compaq, against the advice of influential directors and investors. When this acquisition didn't do the growth regeneration trick—how could it?—the idea to shift from hardware to software was raised by HP's directors and investors. Didn't such a shift resurrect IBM in the 1990s? And who was better suited to navigate the shift than a CEO of a

large software company? All eyes were therefore turned to Leo Apotheker, a German executive who was briefly the Co-CEO of the software giant SAP, and he was promptly hired by HP as CEO in 2010.

But how to quickly turn a behemoth like HP from a traditional hardware manufacturer to an agile software producer? You guessed it: by a bold, large acquisition. A quick (later discovered to be disastrously superficial) search and due diligence identified the "ideal" target: Autonomy Corp., a British software company founded in 1996, which specialized, it claimed, in big data analytics and information management and protection. By the time of acquisition, Autonomy was a U.K. tech star, reputed to be the largest British software company in 2010, and its founder and CEO, Michael Lynch, was widely celebrated and even referred to by the *Sunday Times* as "Britain's Bill Gates." So, Autonomy seemed to come with a pedigree, particularly if you relied on rumors and newspapers.

CEO Leo Apotheker strongly believed that Autonomy was an excellent fit for HP, ushering in the much needed strategic pivot to software and the cloud, and agreed to an exorbitant price: $11.1B for a company with $1B revenues in 2010 (later alleged by HP to be grossly inflated). The acquisition price, reflecting an astounding 80% premium over Autonomy's share price (typical acquisition premia are in the 35–45% range), was widely criticized by the media as "absurdly high," and the acquisition as a "botched strategy shift."[30] This time, the acquisition miscalculation was so obvious that even investors and the media got it right. Despite executives' hype around the acquisition, HP's stock price continued its downward spiral, but CEO Apotheker was unfazed, declaring in August 2011:

[30] Wikipedia, HP Autonomy.

"Together with Autonomy we plan to reinvent how both structured and unstructured data is processed, analyzed, optimized, automated, and protected." A mouthful. He also promised that: "Just to make sure everybody understands, Autonomy will be, on Day 1, accretive [presumably in EPS terms] to HP." What more do investors need?

Left unanswered was the strategic question: How could Autonomy with only $1.0B annual sales, later revealed to be grossly inflated, significantly change the course of a $127B revenue company (HPs sales in 2011)? A scooter's engine installed in a semi-trailer? So, despite the optimistic statements, the wide criticism of the deal and of Apotheker's leadership of HP didn't abate, and in September 2011 he was fired, after just 11 months at HP's helm—a record, even for HP. And this was *before* the acquisition of Autonomy closed.[31] Don't cry for Apotheker, though; he reportedly took home $25.0M in severance pay. Excellence in corporate America definitely has its rewards. To mend things, HP hired

Meg Whitman as CEO, an experienced technology executive and a former CEO of eBay.[32]

The more experienced Whitman perhaps had a golden opportunity to cancel or renegotiate the Autonomy deal, but Autonomy was acquired nevertheless in October 2011, and HP's press release on October 3, 2011, was ebullient: "The acquisition positions HP as a leader in the large and growing enterprise information management space. Autonomy's software offerings power more than 25,000 customer accounts worldwide." Not surprisingly, given the exorbitant acquisition price and premium paid, Autonomy's CEO,

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[31] HP's share price during the third quarter of 2011, when the acquisition was discussed, plunged by over a third. One wonders how HP's directors could ignore such a uniformly negative shareholders' view? As reported, they also ignored a letter sent to them by HP CFO, Cathie Lesjak, expressing grave misgivings about the Autonomy deal.

[32] *CNN Money*, September 22, 2011.

Michael Lynch, the "British Bill Gates" was ecstatic: "This is a historic day for Autonomy, our employees and the customers we serve…. We are at a dawn of new era…." HP's new chief executive, Meg Whitman, a former HP board member, publicly expressed in November 2011 her full support of Autonomy's acquisition: "I am really excited about this acquisition which would be priority 1, 2, and 3 for 2012." Autonomy indeed became a priority for HP, but not as intended.

As became widely known soon thereafter, Autonomy's acquisition was an unmitigated disaster. Shortly after the acquisition, Autonomy's sales plummeted, and roughly a year after the acquisition HP wrote off—declared a loss—$8.8B of Autonomy's investment, a full 80% of the acquisition price, stating that it had uncovered serious accounting improprieties at Autonomy, including "outright misrepresentations" of sales and earnings that occurred before HP acquired the company. As expected, CEO Whitman blamed her predecessor Leo Apotheker and HP's head of strategy Shane Robinson for the Autonomy fiasco. Whitman added that the company filed a fraud complaint against Autonomy and its executives with the SEC, as well as with British law enforcement, and that it intends to file civil charges against Autonomy's past executives to recoup shareholders' losses. However, not to raise investors' expectations for a quick resolution and compensation, she added that she expects the legal process to be a "multi-year journey." ("Nightmare" would have been more fitting).[33] HP shares plunged further 13% on the announcement. What else?

[33] David Goldman, "HP takes $8.8 billion writedown on Autonomy," *CNN Business*, November 20, 2012.

As expected, Michael Lynch dismissed all fraud charges and blamed HP's leadership for botching the acquisition, threatening to counter-sue the acquirer. In May 2023, after a protracted legal battle, the U.K. extradited Mike Lynch to the United States to face fraud criminal charges. In 2020, a U.S. appeals court upheld Hussain Sushovan's fraud conviction and five-year prison sentence for his role, as the CFO of Autonomy, in the 2011 Autonomy acquisition and its various misrepresentations. A total mess. We believe most readers will agree with our designation of Autonomy's acquisition as "ugly" in our good/bad/ugly classification. Not only was it a financial disaster, but it was also an embarrassment to a storied company like HP as well as to HP's highly experienced executives and directors. That's how strong apparently is the appeal of the so called "transformative acquisition." A postscript: HP never fully recovered from the Autonomy debacle. In 2015, it split under activists' pressure into two companies—Hewlett Packard Enterprises, and HP

Inc.—separating its personal computer and printer businesses from its technology services, but even this split didn't return HP to its glory days as a leading technology company.[34] Ugly and sad.

4. Preliminary Lessons

So here you have it: the good, the bad, and the ugly acquisitions. What can we learn from these cases? Quite a few things:

[34] To add insult to injury: Warren Buffett's Berkshire Hathaway sold $158 million of its HP's shares in September 2023.

Acquisitions under duress generally fail.

Many successful companies, like Teva Pharmaceutical and HP, sooner or later reach a maturity plateau; the uniqueness of their leading products or services peters out, some of their patents expire (Teva's Capaxone), or they face a disruption when competitors improve their own products (Apple's iPhone terminating Nokia's leadership). Sales and share prices consequently stall, and management is under heavy pressure of investors, analysts, and activists to regenerate growth *quickly*. The common prescription is a "transformative acquisition."[35] This, however, is easier said than done. There are very few readily available acquisition candidates capable of such a transformation, and the managers/owners of those few are aware of the buyers' desperate situation and drive the target prices up to the stratosphere (Autonomy's $11.1B absurd price tag). Such hasty acquisitions, goaded by commission-hungry investment bankers, are not only expensive, they also often end up as strategic misfits, as when Teva dug itself deeper into the deteriorating generic-drug sector with the acquisition of Actavis. Teva and HP made exceptional blunders, but in reality such hasty acquisition failures are more the norm, as our analysis will show.

The natural phase of business maturity and the consequent slowing-down of growth doesn't necessarily call for an implant (acquisition). Such business cycles aren't secret, or unexpected, so the ideal course is to identify the looming crisis *at an early stage*, well before patents expire or competitors' products become dominant, and develop a cool headed restructuring plan. An acquisition may be part of such a plan, but not necessarily so.

[35] Some managers of slowing-down companies can't resist the temptation to commit financial statement fraud to portray continued growth. See, for example, the case of Satyam (2009), India's biggest reporting fraud.

In 2021, for example, several major oil companies, realizing the increasing public headwinds facing fossil fuels, reorganized to enhance renewable energy production, often without major acquisitions. Similarly, Intel, which experienced a serious loss of market share and sliding stock price in 2020, recruited a new CEO who announced (March 2021) a bold reorganization plan that included increased outsourcing, a $20.0B commitment for new production facilities, and enhanced R&D. This wide-ranging reorganization plan gained shareholders' approval and drove Intel's share price up more than 5%, but it didn't include an acquisition. So, our first lesson is that in most cases there is no need for a hasty, large acquisition to save the day, which, in any case, is rarely saved by acquisitions (recall the 70–75% acquisition failure rate).

Debt matters, a lot.

What almost crushed Teva was mainly the large debt raised to acquire Actavis. Our multivariate model (see Appendix) confirms on a large sample that acquisitions that significantly raise the *financial leverage* (debt-to-equity ratio) of the buyer often fail, because the forecasted synergies and revenue increases expected from the merger are frequently grossly optimistic and fall short of the large debt servicing payments, let alone generate a profit. Furthermore, often ignored by buyers and their investors are the prospects of unexpected future shifts in customer demand, new technologies developed, or changes in economic conditions, which adversely impact the consequences of the acquisition. Buyers often fail to balance the unchanging requirement to service a large debt against the considerable uncertainty of the acquisition's benefits. So, a large acquisition

financed mostly by debt will likely adversely affect the buyer's operations and solvency, sometimes even leading to its failure.

Know thy target.

Autonomy, acquired by HP for $11.1B, was apparently an empty shell, since HP in short order wrote off—recognized as a loss—80% of Autonomy's balance sheet value. How could this happen to a large and experienced technology company like HP? Where were the experts expected to pour over Autonomy's books and the due diligence of Autonomy's business? Where were the advising investment bankers, which profited handsomely from the acquisition? And where were HP's board members? Sound asleep, or falling for the U.K.

hype surrounding Autonomy and its founder Michael Lynch? And why didn't anybody pay attention to the red alerts of falling HP share prices throughout the acquisition process and highly critical financial experts who warned against the deal.[36]

And most importantly, how could two HP CEOs, Leo Apotheker and Meg Whitman, both with considerable technology expertise, enthusiastically endorse and push for Autonomy's acquisition? The fact that in most cases, executives and board members involved in failing acquisitions don't pay a price for the debacle they caused certainly contributes to such careless target examination. "Other people's money" matters less.

[36] The signs of Autonomy's empty shell and misrepresentations could have been easily detected before acquisition. Jack Ciesielski, a veteran analyst and forensic accountant, wrote a few years later that in each of the 10 quarters preceding Autonomy's acquisition it had reported revenues that were within 4% of analysts' expectations—a suspicious consistency. Ciesielski notes that Autonomy inflated revenues by coaxing its resellers toward each quarter-end to "buy" the software for deals close to be completed (but not yet recognized as revenues). This trick enabled Autonomy to inflate its quarterly revenues by about 15%. Of course, once this so called "channel stuffing" had ceased, upon Autonomy's acquisition, its revenues plummeted. See, Jack Ciesielski, "How Autonomy Fooled Hewlett-Packard," *Fortune,* December 15, 2016.

Part of the problem, confirmed by our multivariate model, is that acquisitions' examination and due diligence are more problematic when the target is a foreign entity (cross-border acquisitions), like Autonomy. Distance matters to information acquisition, and the integrity (truthfulness) of financial reports is compromised in many countries around the world (although not in the U.K.). That's one of the reasons that our model indicates (Appendix) that foreign targets often detract from the acquisition's success. Furthermore, cross-border acquisitions are much more difficult to integrate (merge) than domestic ones, due to different cultures, norms, and laws. A case in point are the protracted problems and difficulties encountered by GE in the acquisition and integration of the French company Alstom.

Accordingly, the botched acquisition and integration of Autonomy highlights the importance of the target's due diligence and thorough examination, along with holding financially responsible the acquisition's architects.

Investors are mostly clueless.

At the time of the merger announcement, investors cheered up the subsequently failed acquisition of Teva (16% share price rise), yet viewed warily the highly successful YouTube's purchase (Google's 0.5% share price drop). However, investors correctly predicted the Autonomy debacle. Overall, and this is confirmed by research, at the time of acquisitions, investors are generally concerned with their consequences, as evidenced by the frequent negative share price reaction to managerial acquisition announcements, yet investors are rarely able to distinguish ahead of time between successful and unsuccessful acquisitions. This is, however, understandable, given the uniform and often irresponsible

hype of acquisitions by the buyer's executives,[37] and the paucity of substantive, objective information about the forthcoming merger and the associated risks. This lack of information is a serious concern, particularly for policymakers (SEC), because investors are often asked to vote on significant mergers, but there isn't much beyond managers' hype to base such a vote on. So, what's the use of requiring investors' M&A approval? Our multivariate model (Appendix) and the "acquisition scorecard" we propose (Chapter 15) will assist investors in voting on merger and in the related investment decisions they may choose to make.

Any positive lessons?

So far we have pointed out several negative inferences from HP and Teva's acquisitions. Can we find anything to be positively learned from the successful YouTube purchase?

Two things stand out comparing the highly successful YouTube acquisition by Google with the failures of HP and Teva: First, in contrast with the underperforming buyers, HP and Teva *at the time of acquisition*, Google was a very successful, up-and-coming tech company, leading its field at the time of YouTube's acquisition. Second and even more important, the target (YouTube) was unusually successful pre-acquisition: it was a fast growing company in a new, highly promising sector (video-sharing), where Google had no operations. So, acquisitions by successful companies of up-and-coming targets are often highly likely to succeed. Furthermore, the target's pre-acquisition financial health and growth trajectory are crucial for the acquisition's success.

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[37] Managers' uniform hype at acquisition announcements is a combination of natural excessive optimism and often insufficient knowledge about the target's expected benefits (recall Autonomy) and the integration challenges. Indeed, managers' overconfidence and excessive optimism are well documented, see Chapter 13.

Interestingly, a few years after the YouTube acquisition, the same highly successful Google attempted another "transformative" merger: In August 2011, it acquired for $12.5B (a hefty 63% premium) Motorola Mobility Holding, the cellphone arm that split earlier from Motorola. The transformation expectations were made clear by Larry Page, Google's cofounder, who praised the acquisition thus: "Motorola is a great American tech company that has driven the mobile revolution… including the creation of the first cell phone…. And as a company who made a big, early bet on Android, Motorola has become an incredibly valuable partner of Google…. [I]t's a great time to be in the mobile business, and that's why I am confident Dennis [Motorola's chief] and the team at Motorola will be creating the next generation of mobile devices that will improve lives for years to come."

So, Google clearly planned a business model change by entering the cellphone market with Motorola's "next generation mobile devices." This entry attempt, however, failed miserably. Slightly over two years after acquisition (January 2014), Google sold Motorola Mobility to Lenovo for a mere $2.9B and Motorola's cable set-top box business to a private equity firm for $2.3B. Google, however, kept Motorola's large patent portfolio, likely to protect its own Android patents against infringement claims. Why the different acquisition consequences, YouTube vs. Motorola? Obvious: YouTube was a young, upcoming, and highly sought after company, while Motorola Mobility was a has-been in the wireless industry. Indeed, our model shows that the *pre-merger performance of the target company* has a significant positive effect on the merger success. There are very few successful turnarounds of lagging targets (toads kissed by princesses in Warrant Buffet's metaphor).

5. Finally, a Word of Caution

We were able to draw various interesting inferences and lessons from the "good, bad, and ugly" acquisition cases presented above, but these inferences are based on just three *individual and highly prominent* mergers. Can these lessons be generalized? Could you say definitively, for example, that acquisitions financed by a high level of debt should be avoided, or that an underperforming target should be shunned? Definitely not, based on a sample of three and without considering the special circumstances surrounding the acquisitions. It may be, for example, that an underperforming target acquired by a successful company with special expertise in its business (e.g., if Samsung were to acquire Motorola Mobility) could have been turned into a success story. That's why we developed for this book a multivariate statistical model estimated on a large sample (40,000 acquisitions) to overcome the limitations of a few individual cases, like the good, the bad, and the ugly presented in this chapter.

So, we have served an appetizer. The main course is yet to come.