

CORPORATE FINANCE PRACTICE

The CEO's guide to corporate finance

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Illustration by Daniel Bejar

Four principles can help you
make great financial decisions—
even when the CFO's not in
the room.



The problem

Strategic decisions can be complicated by competing, often spurious notions of what creates value. Even executives with solid instincts can be seduced by the allure of financial engineering, high leverage, or the idea that well-established rules of economics no longer apply.

Why it matters

Such misconceptions can undermine strategic decision making and slow down economies.

What you should do about it

Test decisions such as whether to undertake acquisitions, make divestitures, invest in projects, or increase executive compensation against four enduring principles of corporate finance. Doing so will often require managers to adopt new practices, such as justifying mergers on the basis of their impact on cash flows rather than on earnings per share, holding regular business exit reviews, focusing on enterprise-wide risks that may lurk within individual projects, and indexing executive compensation to the growth and market performance of peer companies.

It's one thing for a CFO to understand the technical methods of valuation—and for members of the finance organization to apply them to help line managers monitor and improve company performance. But it's still more powerful when CEOs, board members, and other non-financial executives internalize the principles of value creation. Doing so allows them to make independent, courageous, and even unpopular business decisions in the face of myths and misconceptions about what creates value.

When an organization's senior leaders have a strong financial compass, it's easier for them to resist the siren songs of financial engineering, excessive leverage, and the idea (common during boom times) that somehow the established rules of economics no longer apply. Misconceptions like these—which can lead companies to make value-destroying decisions and slow down entire economies—take hold with surprising and disturbing ease.

What we hope to do in this article is show how four principles, or cornerstones, can help senior executives and board members make some of their most important decisions. The four cornerstones are disarmingly simple:

- 1. The core-of-value principle** establishes that value creation is a function of returns on capital and growth, while highlighting some important subtleties associated with applying these concepts.
- 2. The conservation-of-value principle** says that it doesn't matter how you slice the financial pie with financial engineering, share repurchases, or acquisitions; only improving cash flows will create value.
- 3. The expectations treadmill principle** explains how movements in a company's share price reflect changes in the stock market's expectations about performance, not just the company's actual performance (in terms of growth and returns on invested capital). The higher those expectations, the better that company must perform just to keep up.
- 4. The best-owner principle** states that no business has an inherent value in and of itself; it has a different value to different owners or potential owners—a value based on how they manage it and what strategy they pursue.

Ignoring these cornerstones can lead to poor decisions that erode the value of companies. Consider what happened during the run-up to the financial crisis that began in 2007. Participants in the securitized-mortgage market all assumed that securitizing risky home loans made them more valuable because it reduced the risk of the assets. But this notion violates the conservation-of-value rule. Securitization did not increase the aggregated cash flows of the home loans, so no value was created, and the initial risks remained. Securitizing the assets simply enabled the risks

Give each business unit a date stamp, or estimated time of exit, and review them regularly. This keeps exits on the agenda and obliges executives to evaluate businesses as their “sell-by date” approaches.

to be passed on to other owners: some investors, somewhere, had to be holding them.

Obvious as this seems in hindsight, a great many smart people missed it at the time. And the same thing happens every day in executive suites and board rooms as managers and company directors evaluate acquisitions, divestitures, projects, and executive compensation. As we'll see, the four cornerstones of finance provide a perennially stable frame of reference for managerial decisions like these.

Mergers and acquisitions

Acquisitions are both an important source of growth for companies and an important element of a dynamic economy. Acquisitions that put companies in the hands of better owners or managers or that reduce excess capacity typically create substantial value both for the economy as a whole and for investors.

You can see this effect in the increased combined cash flows of the many companies involved in acquisitions. But although they create value overall, the distribution of that value tends to be lopsided, accruing primarily to the selling companies' shareholders. In fact, most empirical research shows that just half of the acquiring companies create value for their own shareholders.

The conservation-of-value principle is an excellent reality check for executives who want to make sure their acquisitions create value for their shareholders. The principle reminds us that acquisitions create value when the cash flows of the combined companies are greater than they would otherwise have been. Some of that value will accrue to the acquirer's shareholders if it doesn't pay too much for the acquisition.

Exhibit 1 shows how this process works. Company A buys Company B for \$1.3 billion—a transaction that includes a 30 percent premium over its market value. Company A expects to increase the value of Company B by

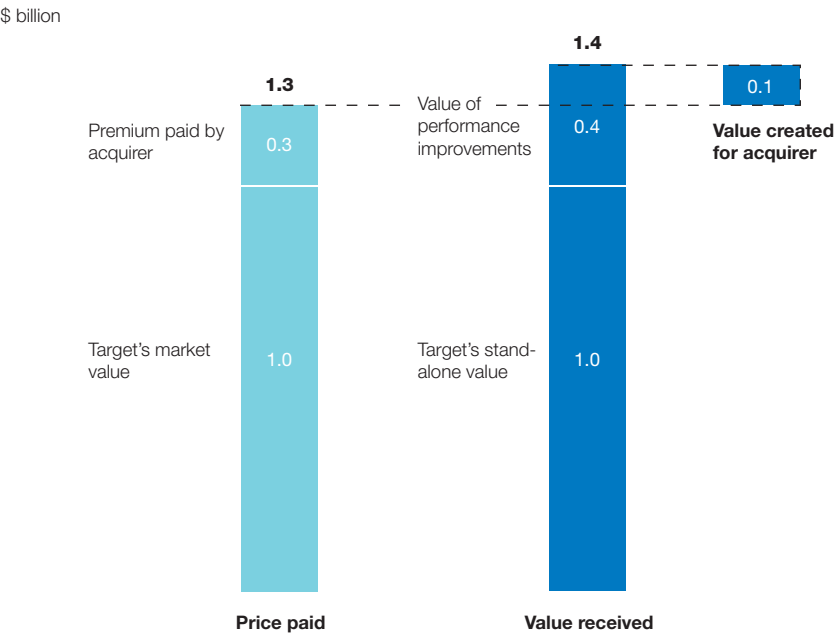
40 percent through various operating improvements, so the value of Company B to Company A is \$1.4 billion. Subtracting the purchase price of \$1.3 billion from \$1.4 billion leaves \$100 million of value creation for Company A's shareholders.

In other words, when the stand-alone value of the target equals the market value, the acquirer creates value for its shareholders only when the value of improvements is greater than the premium paid. With this in mind, it's easy to see why most of the value creation from acquisitions goes to the sellers' shareholders: if a company pays a 30 percent premium, it must increase the target's value by at least 30 percent to create any value.

While a 30 or 40 percent performance improvement sounds steep, that's what acquirers often achieve. For example, Exhibit 2 highlights four large deals in the consumer products sector. Performance improvements typically exceeded 50 percent of the target's value.

Our example also shows why it's difficult for an acquirer to create a substantial amount of value from acquisitions. Let's assume that Company A was worth about three times Company B at the time of the acquisition. Significant as such a deal would be, it's likely to increase Company A's value by only 3 percent—the \$100 million of value creation depicted in Exhibit 1, divided by Company A's value, \$3 billion.

To create value, an acquirer must achieve performance improvements that are greater than the premium paid.



Dramatic performance improvement created significant value in these four acquisitions.

	Present value of announced performance improvements as a % of target’s stand-alone value	Premium paid as a % of target’s stand-alone value	Net value created from acquisition as a % of purchase price
Kellogg acquires Keebler (2000)	45–70	15	30–50
PepsiCo acquires Quaker Oats (2000)	35–55	10	25–40
Clorox acquires First Brands (1998)	70–105	60	5–25
Henkel acquires National Starch (2007)	60–90	55	5–25

Finally, it’s worth noting that we have not mentioned an acquisition’s effect on earnings per share (EPS). Although this metric is often considered, no empirical link shows that expected EPS accretion or dilution is an important indicator of whether an acquisition will create or destroy value. Deals that strengthen near-term EPS and deals that dilute near-term EPS are equally likely to create or destroy value. Bankers and other finance professionals know all this, but as one told us recently, many nonetheless “use it as a simple way to communicate with boards of directors.” To avoid confusion during such communications, executives should remind themselves and their colleagues that EPS has nothing to say about which company is the best owner of specific corporate assets or about how merging two entities will change the cash flows they generate.

Divestitures

Executives are often concerned that divestitures will look like an admission of failure, make their company smaller, and reduce its stock market value. Yet the research shows that, on the contrary, the stock market consistently reacts positively to divestiture announcements.¹ The divested business units also benefit. Research has shown that the profit margins of spun-off businesses tend to increase by one-third during the three years after the transactions are complete.²

These findings illustrate the benefit of continually applying the best-owner principle: the attractiveness of a business and its best owner will

¹ J. Mulherin and Audra Boone, “Comparing acquisitions and divestitures,” *Journal of Corporate Finance*, 2000, Volume 6, Number 2, pp. 117–39.
² Patrick Cusatis, James Miles, and J. Woolridge, “Some new evidence that spinoffs create value,” *Journal of Applied Corporate Finance*, 1994, Volume 7, Number 2, pp. 100–107.



probably change over time. At different stages of an industry's or company's lifespan, resource decisions that once made economic sense can become problematic. For instance, the company that invented a groundbreaking innovation may not be best suited to exploit it. Similarly, as demand falls off in a mature industry, companies that have been in it a long time are likely to have excess capacity and therefore may no longer be the best owners.

A value-creating approach to divestitures can lead to the pruning of good and bad businesses at any stage of their life cycles. Clearly, divesting a good business is often not an intuitive choice and may be difficult for managers—even if that business would be better owned by another company. It therefore makes sense to enforce some discipline in active portfolio management. One way to do so is to hold regular review meetings specifically devoted to business exits, ensuring that the topic remains on the executive agenda and that each unit receives a date stamp, or estimated time of exit. This practice has the advantage of obliging executives to evaluate all businesses as the “sell-by date” approaches.

Executives and boards often worry that divestitures will reduce their company's size and thus cut its value in the capital markets. There follows a misconception that the markets value larger companies more than smaller ones. But this notion holds only for very small firms, with some evidence that companies with a market capitalization of less than \$500 million might have slightly higher costs of capital.³

Finally, executives shouldn't worry that a divestiture will dilute EPS multiples. A company selling a business with a lower P/E ratio than that of its remaining businesses will see an overall reduction in earnings per share. But don't forget that a divested underperforming unit's lower growth and ROIC potential would have previously depressed the entire company's P/E. With this unit gone, the company that remains will have a higher growth and ROIC potential—and will be valued at a correspondingly higher P/E ratio.⁴ As the core-of-value principle would predict,

³See Robert S. McNish and Michael W. Palys, “Does scale matter to capital markets?” *McKinsey on Finance*, Number 16, Summer 2005, pp. 21–23 (also available on mckinseyquarterly.com).

⁴Similarly, if a company sells a unit with a high P/E relative to its other units, the earnings per share (EPS) will increase but the P/E will decline proportionately.

financial mechanics, on their own, do not create or destroy value. By the way, the math works out regardless of whether the proceeds from a sale are used to pay down debt or to repurchase shares. What matters for value is the business logic of the divestiture.

Project analysis and downside risks

Reviewing the financial attractiveness of project proposals is a common task for senior executives. The sophisticated tools used to support them—discounted cash flows, scenario analyses—often lull top management into a false sense of security. For example, one company we know analyzed projects by using advanced statistical techniques that always showed a zero probability of a project with negative net present value (NPV). The organization did not have the ability to discuss failure, only varying degrees of success.

Such an approach ignores the core-of-value principle's laserlike focus on the future cash flows underlying returns on capital and growth, not just for a project but for the enterprise as a whole. Actively considering downside risks to future cash flows for both is a crucial subtlety of project analysis—and one that often isn't undertaken.

For a moment, put yourself in the mind of an executive deciding whether to undertake a project with an upside of \$80 million, a downside of -\$20 million, and an expected value of \$60 million. Generally accepted finance theory says that companies should take on all projects with a positive expected value, regardless of the upside-versus-downside risk.

But what if the downside would bankrupt the company? That might be the case for an electric-power utility considering the construction of a nuclear facility for \$15 billion (a rough 2009 estimate for a facility with two reactors). Suppose there is an 80 percent chance the plant will be successfully constructed, brought in on time, and worth, net of investment costs, \$13 billion. Suppose further that there is also a 20 percent chance that the utility company will fail to receive regulatory approval to start operating the new facility, which will then be worth -\$15 billion. That means the net expected value of the facility is more than \$7 billion—seemingly an attractive investment.⁵

The decision gets more complicated if the cash flow from the company's existing plants will be insufficient to cover its existing debt plus the debt on the new plant if it fails. The economics of the nuclear plant will then spill over into the value of the rest of the company—which has

⁵The expected value is \$7.4 billion, which represents the sum of 80 percent of \$13 billion (\$28 billion, the expected value of the plant, less the \$15 billion investment) and 20 percent of -\$15 billion (\$0, less the \$15 billion investment).

\$25 billion in existing debt and \$25 billion in equity market capitalization. Failure will wipe out all the company's equity, not just the \$15 billion invested in the plant.

As this example makes clear, we can extend the core-of-value principle to say that a company should not take on a risk that will put its future cash flows in danger. In other words, don't do anything that has large negative spillover effects on the rest of the company. This caveat should be enough to guide managers in the earlier example of a project with an \$80 million upside, a -\$20 million downside, and a \$60 million expected value. If a \$20 million loss would endanger the company as a whole, the managers should forgo the project. On the other hand, if the project doesn't endanger the company, they should be willing to risk the \$20 million loss for a far greater potential gain.

Executive compensation

Establishing performance-based compensation systems is a daunting task, both for board directors concerned with the CEO and the senior team and for human-resource leaders and other executives focused on, say, the top 500 managers. Although an entire industry has grown up around the compensation of executives, many companies continue to reward them for short-term total returns to shareholders (TRS). TRS, however, is driven more by movements in a company's industry and in the broader market (or by stock market expectations) than by individual performance. For example, many executives who became wealthy from stock options during the 1980s and 1990s saw these gains wiped out in 2008. Yet the underlying causes of share price changes—such as falling interest rates in the earlier period and the financial crisis more recently—were frequently disconnected from anything managers did or didn't do.

Using TRS as the basis of executive compensation reflects a fundamental misunderstanding of the third cornerstone of finance: the expectations treadmill. If investors have low expectations for a company at the beginning of a period of stock market growth, it may be relatively easy for the company's managers to beat them. But that also increases the expectations of new shareholders, so the company has to improve ever faster just to keep up and maintain its new stock price. At some point, it becomes difficult if not impossible for managers to deliver on these accelerating expectations without faltering, much as anyone would eventually stumble on a treadmill that kept getting faster.

This dynamic underscores why it's difficult to use TRS as a performance-measurement tool: extraordinary managers may deliver only ordinary TRS because it is extremely difficult to keep beating ever-higher share price expectations. Conversely, if markets have low performance

expectations for a company, its managers might find it easy to earn a high TRS, at least for a short time, by raising market expectations up to the level for its peers.

Instead, compensation programs should focus on growth, returns on capital, and TRS performance, relative to peers (an important point) rather than an absolute target. That approach would eliminate much of the TRS that is not driven by company-specific performance. Such a solution sounds simple but, until recently, was made impractical by accounting rules and, in some countries, tax policies. Prior to 2004, for example, companies using US generally accepted accounting principles (GAAP) could avoid listing stock options as an expense on their income statements provided they met certain criteria, one of which was that the exercise price had to be fixed. To avoid taking an earnings hit, companies avoided compensation systems based on relative performance, which would have required more flexibility in structuring options.

Since 2004, a few companies have moved to share-based compensation systems tied to relative performance. GE, for one, granted its CEO a performance award based on the company's TRS relative to the TRS of the S&P 500 index. We hope that more companies will follow this direction.



Applying the four cornerstones of finance sometimes means going against the crowd. It means accepting that there are no free lunches. It means relying on data, thoughtful analysis, and a deep understanding of the competitive dynamics of an industry. None of this is easy, but the payoff—the creation of value for a company's stakeholders and for society at large—is enormous. ○

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The four cornerstones of corporate finance

In a new book, *Value: The Four Cornerstones of Corporate Finance*, McKinsey’s Richard Dobbs, Bill Huyett, and Tim Koller show the power of four disarmingly simple but often-ignored financial principles. Here are some practical applications.

In practice:

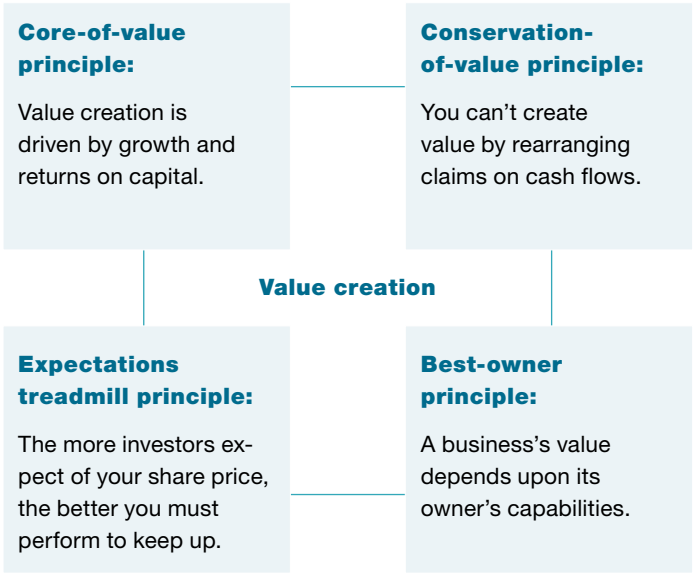
Evaluating projects

A company shouldn’t pass up potentially high-return projects just because they have moderate downside risk.

In practice:

Mergers and acquisitions

Be wary of mergers that are justified (or vetoed) on the basis of their impact on earnings per share. Earnings per share (EPS) has nothing to say about how merging two entities will change the cash flows they generate.



In practice:

Executive compensation

Emphasize long-term growth and returns on capital improvements, measure performance against market expectations, and index compensation to the market performance of peer companies.

In practice:

Divestitures

A multibusiness company should regularly hold business-exit reviews and place a date stamp on divisions, with a milestone for assessing whether it is still the best owner.