Part One

The Four Cornerstones

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Why Value Value?

There's no disputing that value is the defining metric in a market economy. When people invest, they expect the value of their investment to increase by an amount that sufficiently compensates them for the risk they took, as well as for the time value of their money. This is true for all types of investments, including bonds, bank accounts, real estate, or company shares.*

Therefore, knowing how to create and measure value is an essential tool for executives. If we've learned anything from the latest financial crisis, and from periods of economic bubbles and bursts in our history, it's that the laws of value creation and value measurement are timeless. Financial engineering, excessive leverage, the idea during inflated boom times that somehow the old rules of economics no longer apply—these are the misconceptions upon which the value of companies are destroyed and entire economies falter.

In addition to their timelessness, the ideas in this book about creating and measuring value are straightforward. Mathematics professor Michael Starbird is noted for his saying: "The typical 1,200 page calculus text consists of two ideas and 1,198 pages of examples and applications." Corporate finance is similar. In our view, it can be summarized

* Throughout this book we use the terms value and value creation. In its purest form, value is the sum of the present values of future expected cash flows—a point-in-time measure. Value creation is the change in value due to company performance. Sometimes we'll refer to value and value creation based on explicit projections of future growth, returns on capital, and cash flows. Other times we'll use the market price of a company's shares as a proxy for value, and total return to shareholders (share price appreciation plus dividends) as a proxy for value creation.

by four principles or cornerstones.* Applying these principles, executives can figure out the value-creating answers to most corporate finance questions, such as which business strategy to pursue, whether to undertake a proposed acquisition, or whether to repurchase shares.

The cornerstones are intuitive as well. For example, most executives understand that it doesn't affect a company's value whether executive stock options are recorded as an expense in a company's income statement or cited separately in the footnotes of the financial statements, because cash flow doesn't change. Executives are rightly confused when it takes more than a decade of bickering over the accounting rules to reflect the economics of these options.

THE FOUR CORNERSTONES

What are the four cornerstones of finance and how do they guide the creation of lasting corporate value?

The first and guiding cornerstone is that *companies create value by investing capital from investors to generate future cash flows at rates of return exceeding the cost of that capital* (that is, the rate investors require to be paid for the use of their capital). The faster companies can grow their revenues and deploy more capital at attractive rates of return, the more value they create. In short, the combination of growth and return on invested capital (ROIC) drives value and value creation.†

Named, in short, *the core of value,* this combination of growth and ROIC explains why some companies typically trade high price to earnings (P/E) multiples despite low growth. In the branded consumer-products industry, for instance, the global confectioner Hershey Company's P/E was 18 times at the end of 2009, which was higher than 70 percent of the 400 largest U.S. nonfinancial companies. Yet, Hershey's revenue growth rate has been in the 3 to 4 percent range.

What's important about this is that where a business stands in terms of growth and ROIC can drive significant changes in its strategy. For businesses with high returns on capital, improvements in growth create

* Throughout this book we use the terms cornerstones and principles interchangeably.
† We define growth in terms of revenues and earnings. We define return on capital as operating profits divided by the capital invested in fixed assets, working capital, and other assets.

the most value. But for businesses with low returns, improvements in ROIC provide the most value.

The second cornerstone of finance is a corollary of the first: *Value is created for shareholders when companies generate higher cash flows, not by rearranging investors' claims on those cash flows*. We call this *the conservation of value*, or anything that doesn't increase cash flows via improving revenues or returns on capital doesn't create value (assuming the company's risk profile doesn't change).

When a company substitutes debt for equity or issues debt to repurchase shares, for instance, it changes the ownership of claims to its cash flows. However, this doesn't change the total available cash flows or add value (unless tax savings from debt increase the company's cash flows). Similarly, changing accounting techniques may create the illusion of higher performance without actually changing the cash flows, so it won't change the value of a company.

We sometimes hear that when a high P/E company buys a low P/E company, the earnings of the low P/E company get rerated at the P/E of the higher company. If the growth, ROIC, and cash flows of the combined company don't change, why would the market revalue the target company's earnings? In addition to bad logic, the rerating idea has no empirical support. That said, if the new, combined earnings and cash flows improve as a result of the acquisition, then real value has been created.

The third cornerstone is that a company's performance in the stock market is driven by changes in the stock market's expectations, not just the company's actual performance (growth, ROIC, and resulting cash flow). We call this *the expectations treadmill*—because the higher the stock market's expectations for a company's share price become, the better a company has to perform just to keep up.

The large American retailer Home Depot, for instance, lost half the value of its shares from 1999 through 2009, despite growing revenues by 11 percent per year during the period at an attractive ROIC. The decline in value can mostly be explained by Home Depot's unsustainably high value in 1999 at $132 billion, the justification of which would have required revenue growth of 26 percent per year for 15 years (a very unlikely, if not impossible, feat).

In a reverse example, Continental AG's (the German-based global auto supplier) shareholders benefited from low expectations at the beginning of 2003, when Continental's P/E was about six. Over the next three years, the shareholders earned returns of 74 percent per year, about one-third of which can be attributed to the elimination of the negative expectations and the return of Continental's P/E to a more normal level of 11.

As the old adage says, good companies aren't necessarily good investments. In a world where executive compensation is heavily linked to share-price performance over relatively short time periods, it's often easier for executives to earn more by turning around a weak performer than by taking a high-performing company to an even higher level.

The fourth and final cornerstone of corporate finance is that *the value of a business depends on who is managing it and what strategy they pursue*. Otherwise called *the best owner*, this cornerstone says that different owners will generate different cash flows for a given business based on their unique abilities to add value.

Related to this is the idea that there is no such number as an inherent value for a business; rather, a business has a given value only relative to who owns and operates it. Some, for instance, add value through unique links with other businesses in their portfolios, such as those with strong capabilities for accelerating the commercialization of products formerly owned by upstart technology companies.

The four cornerstones of finance provide a stable frame of reference for making sound managerial decisions that lead to lasting value creation. Conversely, ignoring the cornerstones leads to poor decisions that erode the value of companies and, in some cases, create widespread stock market bubbles and painful financial crises.

CONSEQUENCES OF NOT VALUING VALUE

The first cornerstone of value creation—that ROIC and growth generate value—and its corollary, the conservation of value, have stood the test of time. Alfred Marshall wrote about return on capital relative to its cost in 1890.* When managers, boards of directors, and investors have forgotten these simple truths, the consequences have been disastrous.

The rise and fall of business conglomerates in the 1970s, hostile takeovers in the United States in the 1980s, the collapse of Japan's bubble economy in the 1990s, the Southeast Asian crisis in 1998, the Internet bubble, and the economic crisis starting in 2007—all of these can

* A. Marshall, *Principles of Economics,* vol. 1 (New York: MacMillan & Co., 1890), 142.

be traced to a misunderstanding or misapplication of the cornerstones. During the Internet bubble, for instance, managers and investors lost sight of what drives ROIC, and many even forgot its importance entirely.

When Netscape Communications went public in 1995, the company saw its market capitalization soar to $6 billion on an annual revenue base of just $85 million—an astonishing valuation. The financial world was convinced by this phenomenon that the Internet could change the basic rules of business in every sector, setting off a race to create Internet-related companies and take them public. Between 1995 and 2000, more than 4,700 companies went public in the United States and Europe, many with billion-dollar-plus market capitalizations.

Some of the companies born in this era, including Amazon, eBay, and Yahoo!, have created and are likely to continue creating substantial profits and value. But for every solid, innovative new business idea, there were dozens of companies (including Netscape) that couldn't similarly generate revenue or cash flow in either the short or long term. The initial stock market success of these companies represented a triumph of hype over experience.

Many executives and investors either forgot or threw out fundamental rules of economics in the rarified air of the Internet revolution. Consider the concept of *increasing returns to scale,* also known as "network effects" or "demand-side economies of scale." The idea enjoyed great popularity during the 1990s after University of California–Berkeley professors Carl Shapiro and Hal Varian described it in their book, *Information Rules: A Strategic Guide to the Network Economy.**

The basic idea is this: in certain situations, as companies get bigger, they can earn higher margins and return on capital because their product becomes more valuable with each new customer. In most industries, competition forces returns back to reasonable levels; but in increasing-return industries, competition is kept at bay by the low and decreasing unit costs of the market leader (hence the tag "winner takes all" in this kind of industry).

The concept of increasing returns to scale is sound economics. What was unsound during the Internet-bubble era was its misapplication to almost every product and service related to the Internet and, in some cases, to all industries. The history of innovation shows how difficult

* C. Shapiro and H. Varian, *Information Rules: A Strategic Guide to the Network Economy* (Boston: Harvard Business School Press, 1999).

it is to earn monopoly-sized returns on capital except in very special circumstances.

Many market commentators ignored history in their indiscriminate recommendation of Internet stocks. They took intellectual shortcuts to justify absurd prices for shares of technology companies, which inflated the Internet bubble. At the time, those who questioned the new economics were branded as people who simply didn't get it—the new-economy equivalents of those who would defend Ptolemaic astronomy.

When the laws of economics prevailed, as they always do, it was clear that Internet businesses (such as online pet food or grocery delivery) didn't have the unassailable competitive advantages required to earn even modest returns on capital. The Internet has revolutionized the economy, as have other innovations, but it didn't and can't change the rules of economics, competition, and value creation.

Ignoring the cornerstones also underlies financial crises, such as the one that began in 2007. When banks and investors forgot the conservation-of-value principle, they took on a level of risk that was unsustainable.

First, homeowners and speculators bought homes—essentially illiquid assets. They took out mortgages with interest set at artificially low teaser rates for the first few years, but then those rates rose substantially. Both the lenders and buyers knew that buyers couldn't afford the mortgage payments after the teaser period. But both assumed that either the buyer's income would grow by enough to make the new payments, or the house value would increase enough to induce a new lender to refinance the mortgage at similarly low teaser rates.

Banks packaged these high-risk debts into long-term securities and sold them to investors. The securities, too, were not very liquid, but the investors who bought them, typically hedge funds and other banks, used short-term debt to finance the purchase, thus creating a long-term risk for those who lent the money.

When the interest on the homebuyers' adjustable rate increased, many could no longer afford the payments. Reflecting their distress, the real estate market crashed, pushing the value of many homes below the value of loans taken out to buy them. At that point, homeowners could neither make the required payments nor sell their houses. Seeing this, the banks that had issued short-term loans to investors in securities backed by mortgages became unwilling to roll those loans over, prompting all the investors to sell their securities at once.

The value of the securities plummeted. Finally, many of the large banks themselves had these securities on their books, which they, of course, had also financed with short-term debt that they could no longer roll over.

This story reveals two fundamental flaws in the decisions taken by participants in the securitized mortgage market. First, they all assumed that securitizing risky home loans made them more valuable because it reduced the risk of the assets—but this violates the conservation-of-value rule. The aggregated cash flows of the home loans were not increased by securitization, so no value was created and the initial risks remained.

Securitizing the assets simply enabled risks to be passed on to other owners; some investors, somewhere, had to be holding them. Yet the complexity of the securities chain made it impossible to know who was holding precisely which risks. After the housing market turned, financial service companies feared that any of their counterparties could be holding massive risks and almost ceased to do business with one another. This was the start of the credit crunch that triggered a protracted recession in the real economy.

The second flaw in thinking made by decision makers during the past economic crisis was believing that using leverage to make an investment in itself creates value. It doesn't because, according to the conservation-of-value principle, leverage doesn't increase the cash flows from an investment. Many banks, for example, used large amounts of short-term debt to fund their illiquid long-term assets. This debt didn't create long-term value for shareholders in those banks. On the contrary, it increased the risks of holding their equity.

Market bubbles and crashes are painfully disruptive, but we don't need to rewrite the rules of competition and finance to understand and avoid them. Certainly the Internet changed the way we shop and communicate—but it didn't create a materially different economic mechanism, the so-called *new economy*. On the contrary, the Internet made information, especially about prices, transparent in a way that intensifies market competition in many real markets.

Similarly, the financial crisis triggered in 2007 will wring out some of the economy's recent excesses, such as enabling people to buy houses they can't afford, and uncontrolled credit card borrowing by consumers. But the key to avoiding the next crisis is to reassert the fundamental economic rules, not to revise them.

ADVANTAGES OF VALUING VALUE

There has long been vigorous debate on the importance of shareholder value relative to a company's record on employment and social responsibility—also measures of success. In their ideology and legal frameworks, the United States and the United Kingdom have given most weight to the idea that the main function of a corporation is to maximize shareholder value.

An explicitly broader view of a corporation's purpose, governance structures, and forms of organization has long been influential in continental Europe. In the Netherlands and Germany, for example, the board of a large corporation has a duty to support the continuity of the business in the interests of all the corporation's stakeholders, including employees and the local community, not just shareholders.

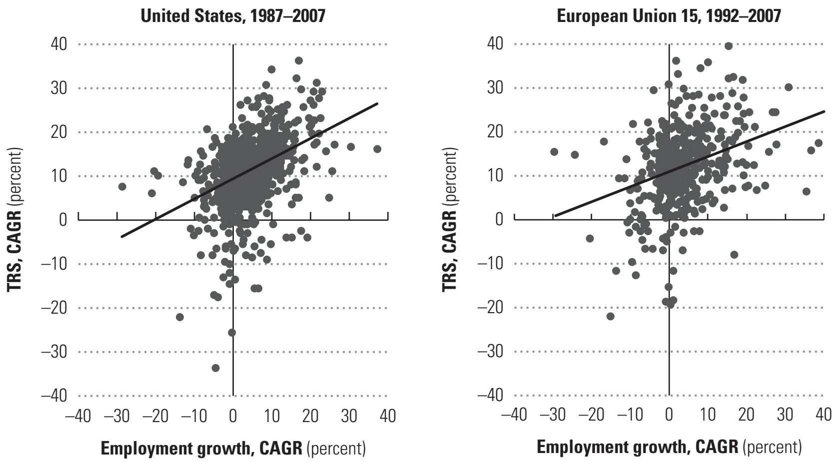
Our analysis and experience suggests that for most companies anywhere in the world, pursuing the creation of long-term shareholder value doesn't mean that other stakeholders suffer. We would go further and argue that companies dedicated to value creation are more robust and build stronger economies, higher living standards, and more opportunities for individuals.

Consider employee stakeholders. A company that tries to boost profits by providing a shabby work environment, underpaying employees, and skimping on benefits will have trouble attracting and retaining high-quality employees. With today's more mobile and more educated workforce, such a company would struggle in the long term against competitors offering more attractive environments. While it may feel good to treat people well, it's also good business.

Value-creating companies also generate more jobs. When examining employment, we found the United States and European companies that created the most shareholder value in the past 15 years have shown stronger employment growth. In Exhibit 1.1, companies with the highest total returns to shareholders (TRS) also had the largest increases in employment. We tested this link for individual sectors of the economy and found similar results.

An often expressed concern is that companies must focus on near-term accounting earnings to create shareholder value. We disagree. In fact, we've found a strong positive correlation between long-term shareholder returns and investments in R&D evidence of a commitment to creating value in the longer term. As shown in Exhibit 1.2,

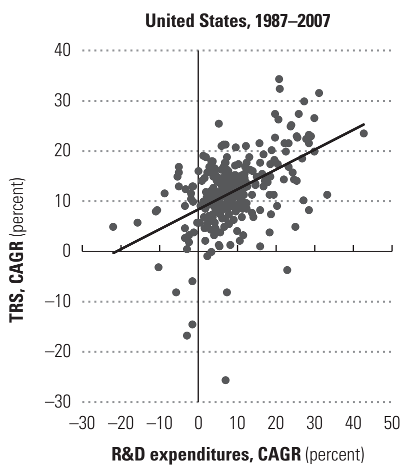
EXHIBIT 1.1 **Correlation between Total Returns to Shareholders (TRS) and Employment Growth**



companies that earned the highest shareholder returns also invested the most in R&D. These results also hold within individual sectors in the economy.

Another myth is that value-creating companies tend to ignore their social responsibilities—but it's the opposite that appears to be true: our

EXHIBIT 1.2 **Correlation between TRS and R&D Expenditures**



research shows many corporate social responsibility initiatives help create shareholder value.*

IBM, for instance, provides free Web-based management resources to small and midsize enterprises in developing economies. Helping to build such businesses not only improves IBM's reputation in new markets, but it also fosters relationships with companies that could become future customers. Best Buy has a targeted program to reduce employee turnover among women, helping them create their own support networks and build leadership skills. Turnover among women decreased by more than five percent as a result of the program.

In all, the evidence shows that managers who make the effort to create longer-term value for shareholders see that effort rewarded in their companies' stock market performance. In turn, companies that create more lasting value for their shareholders have more financial and human capital to foster behaviors that beneficially impact other stakeholders too.

CHALLENGES FOR EXECUTIVES

There's no doubt that focusing on ROIC and revenue growth over the long term is a tough job for executives—and they won't take it on unless they're sure it wins them more investors and a stronger share price. But as later chapters will show, the evidence is overwhelming that investors do indeed value long-term cash flow, growth, and ROIC, and companies that perform well on these measures perform well in the stock market.

Still, despite the evidence that shareholders value value, companies continue to listen to misguided advice about what the market wants. They fall for the promise of creating value in various unproven ways, such as questionable accounting treatments, elaborate financial structures, or a myopic focus on earnings per share (EPS). But this won't happen.

When analyzing a prospective acquisition, the question often posed is whether the transaction will accrete or dilute EPS over the first year or two. It doesn't matter. No empirical link exists showing that predicted EPS accretion or dilution is an important indicator of whether

* Sheila Bonini, Timothy Koller, and Philip H. Mirvis, "Valuing Social Responsibility Programs," *McKinsey on Finance*, no. 32 (Summer 2009): 11–18.

an acquisition will create or destroy value. Deals that strengthen EPS and deals that dilute EPS are equally likely to create or destroy value.

Our intuition tells us value creation from an acquisition can't be as simple as short-term EPS accretion/dilution. After all, EPS accretion/dilution is affected by many factors, some of which are clearly important to value creation, such as the growth rate of the target company and the timing of synergy realization; other factors aren't important, such as the way the transaction is structured or how the accountants apply the accounting rules.

But if such concepts like EPS dilution/accretion and the like are fallacies, why do they prevail? Why, despite the simple and intuitive nature of finance, do executives frequently make decisions that defy axiomatic principles and their own instincts?

In our recent discussion with a company and its bankers, the EPS dilution question came up. To paraphrase one of the bankers: "We know that any impact on EPS is irrelevant to value, but we use it as a simple way to communicate with boards of directors."

Yet company executives say they too don't believe the impact on EPS is so important. They tell us they're just using the measures that Wall Street uses. As well, investors tell us that the short-term impact of a deal on EPS is not that important for them. In sum, we hear from almost everyone that a transaction's short-term impact on EPS doesn't matter, yet they all pay homage to it.

This type of groupthink and lack of valuing value often leads to decisions that either erode value or pass up opportunities to create value. In fact, trying to correlate earnings growth with value creation is a fool's game, because creating longer-term value often necessitates some decisions that reduce earnings in the short term. Moreover, when executives use EPS as a basis for decision making, they can confuse more junior people responsible for analyzing the decisions in question.

From 1997 to 2003, a leading company consistently generated annual EPS growth of between 11 percent and 16 percent. Seems impressive, until you look at other measures important to value creation, like revenue growth. During the same period, the company increased revenues by only 2 percent a year.

The company achieved its profit growth by cutting costs, but as these opportunities became depleted, the company reduced its marketing and product development expenses to maintain earnings growth. After the company's stock price crashed in 2003, managers admitted that they had underinvested in longer-term growth drivers and needed to go through a painful rebuilding period.

The pressure to show strong short-term results often mounts when businesses mature and their growth moderates. Investors go on baying for high growth. Managers are tempted to find ways to keep profits rising in the short term while they try to stimulate growth in the longer term. To be sure, there are situations where raising shorter-term profits should be a priority, and it's very easy for managers to use the long-term value argument as an excuse for neglecting what can and should be done in the short term. But short-term efforts to massage earnings (that undercut productive investment) make achieving long-term growth even more difficult, spawning a vicious downward spiral.

Some analysts and investors will always clamor for short-term results. However, even though a company bent on growing long-term value will not always meet their demands, this continuous pressure has the virtue of keeping managers on their toes. Sorting out the trade-offs between short-term earnings and long-term value creation is part of a manager's job, just as having the courage to make the right call is a critical personal quality.

In other words, *applying the principles of value creation requires independence and courage*.

Just as important, it's up to corporate boards to investigate and understand the economics of the businesses in their portfolio well enough to judge when managers are making the right trade-offs and, above all, to protect managers when they choose to build long-term value at the expense of short-term profits.

Applying the cornerstones of value creation 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 one's industry. We hope the rest of this book helps you in this regard so you can make and defend decisions that will create value for investors and society at large.