Example 01

Earnings growth alone can't explain why investors in drugstore chain Walgreens, with sales of $54 billion in 2007, and global chewing gum maker Wm. Wrigley Jr. Company, with sales of $5 billion the same year, earned similar shareholder returns between 1968 and 2007.These two successful companies had very different growth rates. During the period, the net income of Walgreens grew at 14 percent per year, while Wrigley's net income grew at 10 percent per year. Even though Walgreens was one of the fastest-growing companies in the United States during this time, its average annual shareholder returns were 16 percent, compared with 17 percent for the significantly slower-growing Wrigley. The reason Wrigley could create slightly more value than Walgreens despite 40 percent slower growth was that it earned a 28 percent RO IC, while the ROIC for Walgreens was 14 percent (a good rate for a retailer).

Example 02

General Electric (GE) provides another example of the relative impact of growth and ROIC on value. GE's share price increased from about $5 in 1991 to about $40 in 2001, earning investors $519 billion from the increase in share value and distributions during the final 10 years of Jack Welch's tenure as CEO. A similar amount invested in the S&P 500 index would have returned only $212 billion.

How did GE do it? Its industrial and finance businesses both contributed significantly to its overall creation of value, but in different ways. Over the 10-year period, the industrial businesses increased revenues by only 4 percent a year (less than the growth of the economy), but their ROIC increased from about 13 percent to 31 percent. The finance businesses performed in a more balanced way, demonstrating growth of 18 percent per year and increasing ROIC from 14 percent to 21 percent. In the industrial businesses, ROIC was the key driver of value, while in the financial businesses, improvements in both growth and ROIC contributed significantly to value creation.

Example 03

Assume that a company borrows $100 to repurchase 10 percent of its shares. For every $100 of shares repurchased, the company will pay, say, 6 percent interest on its new debt. After tax savings of 35 percent, its total earnings would decline by $3.90. However, the number of shares has declined by 10 percent, so earnings per share (EPS) would increase by about 5 percent. A 5 percent increase in EPS without working very hard sounds like a great deal. Assuming the company's price-to-earnings (P/E) ratio doesn't change, then its market value per share will also increase by 5 percent. In other words, you can get something for nothing: higher EPS with a constant P/E. Unfortunately, this doesn't square with the conservation of value, because the total cash flow of the business has not increased. While EPS has increased by 5 percent, the company's debt has increased as well. With higher leverage, the company's equity cash flows will be more volatile, and investors will demand a higher return. This will bring down the company's P/E, offsetting the increase in EPS.

Example 04

When Johnson & Johnson purchased Pfizer's consumer health business for $16 billion in late 2006, J&J immediately announced that the combination would reduce costs by $600 million per year. These savings were successfully realized and increased the combined operating profits of J&J/Pfizer's consumer businesses by 30 percent—equal to about $5 billion to $6 billion in present value. Taking these numbers, then, the cost savings of the merger alone would recoup one-third 0f the purchase price, making it a likely value creator. A revenue acceleration example also comes from Johnson & Johnson, which acquired Neutrogena (maker of skin care products) in 1994 for $924 million. With new-product development, coupled with an expansion of the brand's presence outside the United States, J&J was able to increase Neutrogena's sales from $281 million to $778 million by 2002. Exhibit 2.7 shows the extent of the new

products J&J introduced under the Neutrogena brand. The common element of both these acquisitions was radical performance improvement, not marginal change. But sometimes we have seen acquisitions justified by what could only be called magic.

Assume, for example, that Company A is worth $100 and Company B is worth $50, based on their respective expected cash flows. Company A buys Company B for $50, issuing its own shares. For simplicity, assume that the combined cash flows are not expected to increase. What is the new Company AB worth? Immediately after the acquisition, the two companies are the same as they were before, with the same expected cash flows, and the original shareholders of the two companies still own the shares of the combined company. So company AB should be worth $150, and the original A shareholders' shares of AB should be worth $100, while the original B shareholders' shares of AB should be worth $50. As simple as this seems, some executives and financial professionals will still see some extra value in the transaction. Assume that Company A is expected to earn $5 next year, so its P/E is 20 times. Company B is expected to earn $3 next year, so its P/E is 16.7 times. What then will be the P/E of Company AB? A straightforward approach suggests that the value of Company AB should remain $150. Its earnings will be $8, so its P/E will be about 18.8, between A's and B's P/Es. But here's where the magic happens. Many executives and bankers believe that once A buys B, the stock market will apply A's P/E of 20 to B's earnings. In other words, B's earnings are worth more once they are owned by A. By this thinking, the value of Company AB would be $160, a $10 increase in the combined value.

Example 06

Project A requires an up-front investment of $2,000. If everything goes well with the project, the company earns $1,000 per year forever. If not, the company gets zero. (Such all-or-nothing projects are not unusual.) To value project A, finance theory directs you to discount the expected cash flow at the cost of capital. But what is the expected cash flow in this case? If there is a 60 percent chance of everything going well, the expected cash flows would be $600 per year. At a 10 percent cost of capital, the project would be worth $6,000 once completed. Subtracting the $2,000 investment, the net value of the project before the investment is made is $4,000. But the project will never generate $600 per year. It will generate annual cash flows of either $1,000 or zero. That means the present value of the discounted cash flows will be either $10,000 or nothing, making the project net of the initial investment worth either $8,000 or –$2,000. The probability of it being worth the expected value of $4,000 ($6,000 less the investment) is zero. Rather than knowing the expected value, managers would be better off knowing that the project carries a 60 percent chance of being worth $8,000 and a 40 percent risk of losing $2,000.

Example 06

Consider the effect of currency risk on Heineken, the global brewer. Heineken produces its flagship brand, Heineken, in the Netherlands, and ships it around the world, especially to the United States. Most other large brewers, in contrast, produce most of their beer in the same national markets in which they sell it. So for most brewers, an exchange rate change affects only the translation of their profits into their reporting currency. For example, a 1 percent change in the value of the currency of one of their non-home markets translates into a 1 percent change in revenues from those markets and a 1 percent change in profits as well. Note that the effect on revenues and profits is the same, because all the revenues and costs are in the same currency. There is no change in operating margin. Heineken's picture is different. Consider Heineken's sales in the United States. When the exchange rate changes, Heineken's revenues in euros are affected, but not its costs. If the dollar declines by 1 percent, Heineken's euro revenues also decline by 1 percent. But since its costs are in euros, they don't change. Assuming a 10 percent margin to begin with, a 1 percent decline in the dollar will reduce Heineken's margin to 9 percent, and its profits reported in euros will decline by a whopping 10 percent. Because Heineken's production facilities are in a different country and it is unable to pass on cost increases because it is competing with locally produced products, its foreign exchange risk is much larger than that of other

global brewers. Hedging might be critical to Heineken's survival, while the other global brewers probably would not benefit from hedging, because the impact of exchange rate changes on their business is not material.