31, 2013) to the third quarter of 2014, Pepsi outperforms Coca-Cola 13.97% to 12.14% annual return. Therefore it is not just the ratios that matter but the investor's holding period that needs to be part of the analysis when evaluating a company's performance.

This quick analysis using financial ratios and trend analysis does not give a clear picture. These ratios and their trends over long periods of time give the potential buyer some indication of the best buy, but not a complete picture. Part of the explanation is that most of the information is historical, while your investment performance is tied to future performance of the company. In other words, it's not what you have done that counts, but what you are going to do. So will PepsiCo use its new acquisitions, Pepsi Bottling Company and PepsiAmericas, to return to a stronger position in terms of EPS and ROE in the coming years? Past performance would support a strong future with its newly acquired companies. Can Coca-Cola continue its strong performance from 2010 into the future and not revert back to the weaker performance of 2008 and 2009? Does its acquisition of its bottling companies provide for a stronger base to maintain its high gross margins and return on equity? Picking a winner is tough, and it is a much easier task to taste-test the two colas and see which one you prefer to drink. As for financial ratio analysis, it is more of an art than a science.

Industry Ratios

Although used often by financial analysts, financial ratios can vary across industries. Therefore, it is important to benchmark these ratios by industry. Let's look at a few industries and some key financial ratios in Table 14.8 to get a sense of the benchmarking process for firms in particular industries.

Table 14.8 shows just a few ratios and a few industries, but it is enough to demonstrate that there are some major differences across industries. For example, both the airline and the retail industries use debt financing more than other industries (debt-to-equity ratios greater than 1 for airlines and 0.81 for retail). Why would these industries tend to borrow so much more money compared with other industries? First, these are very capital-intensive industries, with large fixed asset requirements (airplanes and stores). Second, these assets can be used as collateral for the loans.

Table 14.8 Financial Ratios: Industry Averages

Ratio or Account	Airlines	Auto	Pharmaceuticals	Oil and Gas	Retail	Computer Hardware
P/E ratio	22.44	7.38	87.80	5.39	34.29	20.97
Gross margin	19.28%	21.77%	59.54%	47.47%	24.51%	43.54%
Profit margin	0.75%	3.79%	14.85%	12.14%	2.94%	17.08%

Ratio or Account	Airlines	Auto	Pharmaceuticals	Oil and Gas	Retail	Computer Hardware
Current ratio	0.92	0.32	2.77	1.11	1.23	2.86
Debt-to-equity ratio	1.69	0.34	0.11	0.19	0.81	0.19
Return on assets	0.70%	3.57%	9.40%	12.11%	6.31%	18.22%
Return on equity	0.77%	10.17%	14.71%	20.10%	16.82%	26.24%

Source: Data from Reuters (http://www.investors.reuters.com is no longer online).

We see the lowest gross margins in the airline and auto industries, two industries that have struggled significantly over the past few years. Retail is also low in gross margin, but this is due to the business model of this industry, which has a very high volume and significant inventory turnover. At the other end of the gross margin is the pharmaceutical industry, in which COGS represents less than one-third of the sales price of a drug. Profit margins are lowest for the airline industry, where for every $1 of sale, less than 1 cent makes it to net income. The profit margin ratio line shows that the computer hardware industry converts the greatest amount of sales dollars into profits, with more than 17 cents of every $1 making it to the bottom line. Both the computer hardware and the oil and gas industries have returns on equity above 20%, making them desired investment targets for equity investors.

The issue at hand is not a judgment of industry performance, but an understanding that industries operate differently in terms of borrowing, cash management, capital intensity (required fixed-asset investments), labor intensity, competition, and regulation. When one begins to compare companies from different industries and does not consider their different norms, the evaluation may lead to a poor buying or selling decision. For example, if one were to compare Pfizer (a leading pharmaceutical firm) and ExxonMobil (a large oil and gas company), the low gross margin of ExxonMobil compared with that of Pfizer might lead one to assume that Pfizer has a much higher profit potential and is thus a better buy than ExxonMobil. Looking at the ROE, however, we get a different story about the oil and gas industry, which—with its higher leverage—is able to produce a higher ROE. So, once again, we must understand that these ratios are just starting points for analysis. The real work begins once we compute these ratios to find the areas we need to explore for an evaluation of the company.

FINANCE FOLLIES Cooking the Books at Enron and WorldCom

Before the spectacular bankruptcies of investment banks like Lehman Brothers and other financial institutions in 2008, there were other company implosions that had their roots in questionable accounting practices. Two of these companies, Enron and WorldCom, had remarkably similar histories.

Both were founded in the 1990s; both were for a time the darlings of celebrity media analysts; and both were audited by the same Big Five accounting firm, Arthur Andersen, which built its reputation on honesty and strict adherence to accounting principles.

Enron was a leading energy company; WorldCom was a telecommunications giant. Throughout the 1990s, the stocks of both companies rose to dizzying heights, making fortunes for their executives, employees, and lucky investors. They were included in the major stock indexes and were widely held by mutual funds, pension funds, and other institutional investors. In 2001, however, the party was over when it was revealed that both companies, in collusion with their auditors, had engaged in "creative" financial reporting and questionable accounting practices, some outright fraud and some so outlandish that no one had ever thought to prohibit them. In general, the companies' financial statements were manipulated to create the illusion of growth and profitability when, in fact, they were bleeding cash.

"Cooking the books" occurs when a company knowingly and deliberately includes incorrect information on its financial statements, manipulating various items to improve the appearance of earnings per share. Such statements may keep existing stockholders happy and attract new ones, especially because Wall Street analysts use company financial statements to determine whether they can recommend the stock. Glamour firms in the media spotlight are particularly under pressure to meet analysts' expectations based on their past performance, but the reality is that businesses cannot grow faster than the overall economy for extended periods. Sales and profits that grow at two or three times the rate of the gross domestic product, or GDP, quarter after quarter, year after year, might indicate an exceptional company, but should also be examined with a degree of skepticism.