**Chapter 2 Spreadsheet-Related Problem—Financial Statement Analysis**

The problem requires you to use File C02 on the computer problem spreadsheet. Cary Corporation’s forecasted 2013 financial statements follow, along with industry average ratios.

* 1. Calculate Cary’s 2013 forecasted ratios, compare them with the industry average data, and comment briefly on Cary’s projected strengths and weaknesses.
  2. What do you think would happen to Cary’s ratios if the company initiated cost-cutting measures that allowed it to hold lower levels of inventory and substantially decrease the cost of goods sold? To answer this question, suppose inventories drop to $700,000 and the inventory turnover remains the same as when inventories were $894,000.

**Cary Corporation: Forecasted Balance Sheet as of December 31, 2013**

Cash $ 72,000 Accounts and notes payable $ 432,000

Accounts receivable 439,000 Accruals 170,000

Inventories 894,000 Total current liabilities $ 602,000

Total current assets $1,405,000 Long-term debt 404,290

Land and building 238,000 Common stock 575,000

Machinery 132,000 Retained earnings 254,710

Other fixed assets 61,000

Total assets $1,836,000 Total liabilities and equity $1,836,000

**Cary Corporation: Forecasted Income Statement for 2013**

Sales $4,290,000

Cost of goods sold (3,580,000)

Gross operating profit $ 710,000

General administrative and selling expenses ( 236,320)

Depreciation ( 159,000)

Miscellaneous ( 134,000)

Earnings before taxes (EBT) $ 180,680

Taxes (40%) ( 72,272)

Net income $ 108,408

Number of shares outstanding 23,000

***Per-Share Data***

EPS $ 4.71

Cash dividends per share $ 0.95

P/E ratio 5.0×

Market price (average) $23.57

**Industry Financial Ratios (2013)**a

Quick ratio 1.0×

Current ratio 2.7

Inventory turnoverb 5.8×

Days sales outstanding 32 days

Fixed assets turnoverb 13.0×

Total assets turnoverb 2.6×

Return on assets 9.1%

Return on equity 18.2%

Debt ratio 50.0%

Profit margin on sales 3.5%

P/E ratio 6.0×

aIndustry average ratios have been constant for the past four years.

bBased on year-end balance sheet figures.

c. Suppose Cary Corporation is considering installing a new computer system that would provide tighter control of inventories, accounts receivable, and accounts payable. If the new system is installed, the following data are projected (rather than the data given earlier) for the indicated balance sheet and income statement accounts:

Accounts receivable $ 395,000

Inventories $ 700,000

Other fixed assets $ 150,000

Accounts and notes payable $ 275,000

Accruals $ 120,000

Cost of goods sold $3,450,000

Administrative and selling expenses $ 248,775

P/E ratio 6.0×

How do these changes affect the projected ratios and the comparison with the industry averages? (Note that any changes to the income statement will change the amount of retained earnings; therefore, the model is set up to calculate 2013 retained earnings as 2012 retained earnings plus net income minus dividends paid. The model also adjusts the cash balance so that the balance sheet balances.)

d. If the new computer system were even more efficient than Cary’s management had estimated and thus caused the cost of goods sold to decrease by $125,000 from the projections in part (c), what effect would it have on the company’s financial position?

e. If the new computer system were less efficient than Cary’s management had estimated and caused the cost of goods sold to increase by $125,000 from the projections in part (a), what effect would it have on the company’s financial position?

f. Change, one by one, the other items in part (c) to see how each change affects the ratio analysis. Then think about and write a paragraph describing how computer models such as this one can be used to help make better decisions about the purchase of such items as a new computer system.