**Chapter 16 – Sample Problems**

1. CCC currently has sales of $24,000,000 and projects sales of $32,400,000 for next year. The firm's current assets equal $6,000,000 while its fixed assets are $5,000,000. The best estimate is that current assets will rise directly with sales while fixed assets will rise by $300,000. The firm presently has $3,000,000 in accounts payable, $1,800,000 in long-term debt, and $6,200,000 in common equity. All current liabilities are expected to change directly with sales. CCC plans to pay $800,000 in dividends next year and has a 4.0% net profit margin. What are the company's additional funds needed for the next year? (Round your answer to the nearest dollar.)

a. $1,904,000
b. $854,000
c. $1,350,000
d. $54,000
e. $2,400,000

2. CCC currently has sales of $24,000,000 and projects sales of $32,400,000 for next year. The firm's current assets equal $6,000,000 while its fixed assets are $5,000,000. The best estimate is that current assets will rise directly with sales while fixed assets will rise by $300,000. The firm presently has $3,000,000 in accounts payable, $1,800,000 in long-term debt, and $6,200,000 in common equity. All current liabilities are expected to change directly with sales. CCC plans to pay $800,000 in dividends next year and has a 4.0% net profit margin. Assuming the increase in fixed assets will occur, what is the most sales could equal next year without using discretionary sources of funds? (Round your answer to the nearest dollar.)

a. $22,352,941
b. $24,834,118
c. $27,527,647
d. $19,735,412
e. $21,060,494

Answers:

1. b
2. a

1.

| Account | OLD | CHANGE | NEW |
|---|---|---|---|
| CA | 6,000,000 | with sales | 6,000,000(32,400,000/24,000,000) = 8,100,000 |
| FA | 5,000,000 | +300,000 | 5,000,000 + 300,000 = 5,300,000 |
| Acc Pay | 3,000,000 | with sales | 3,000,000(32,400,000/24,000,000) = 4,050,000 |
| LTD | 1,800,000 | +0 | 1,800,000 |
| CE | 6,200,000 | + change in RE | 6,200,000 + (0.04)(32,400,000) – 800,000 = 6,696,000 |

AFN = projected assets – [projected liabilities + projected equity]
AFN = [8,100,000 + 5,300,000] – [4,050,000 + 1,800,000 + 6,696,000]
AFN = [13,400,000] – [12,546,000] = $854,000

2.

| Account | OLD | CHANGE | NEW |
|---|---|---|---|
| CA | 6,000,000 | with sales | 6,000,000(x/24,000,000) = 0.25x |
| FA | 5,000,000 | +300,000 | 5,000,000 + 300,000 = 5,300,000 |
| Acc Pay | 3,000,000 | with sales | 3,000,000(x/24,000,000) = 0.125x |
| LTD | 1,800,000 | +0 | 1,800,000 |
| CE | 6,200,000 | + change in RE | 6,200,000 + (0.04)(x) – 800,000 |

AFN = projected assets – [projected liabilities + projected equity]

Since we are do not want to use discretionary (additional) funds, we set the AFN equation equal to zero.

0 = [0.25x + 5,300,000] – [0.125x + 1,800,000 + 6,200,000 + 0.04x – 800,000]
0 = [0.25x + 5,300,000] – [0.165x + 7,200,000]
0 = 0.085x – 1,900,000
$\frac{-0.085x}{-0.085} = \frac{-1,900,000}{-0.085}$

x = $22,352,941