

Question 1:

An incomplete 2013 balance sheet for O'Keefe Industries is expressed below together with the following key financial data:

**O'Keefe Industries Balance Sheet
December 31, 2013**

ASSETS		LIABILITIES AND STOCKHOLDERS' EQUITY	
Cash	\$ 30,000	Accounts payable	\$120,000
Marketable securities	25,000	Notes payable	160,000
Account receivable	200,000	Accruals	20,000
Inventories	225,000	Total current liabilities	300,000
Total current assets	\$480,000	Long-term debt	600,000
Net fixed assets	1,020,000	Stockholders' equity	\$600,000
Total assets	1,500,000	Total liabilities and stockholders' equity	1,500,000

- (1) Sales totaled \$1,800,000.
- (2) The gross profit margin was 25%.
- (3) Inventory turnover was 6.0.
- (4) There are 360 days in the year.
- (5) The average collection period was 40 days.
- (6) The current ratio was 1.60.
- (7) The total asset turnover ratio was 1.20.
- (8) The debt ratio was 60%.
- (9) O'Keefe had common stocks outstanding at 150,000 shares with market price of \$5.15.
- (10) EBIT of O'Keefe was \$200,000, which resulted in net income of \$90,000.

1.1 Complete the 2013 balance sheet for O'Keefe Industries by using provided information.

Note: Please fill your answer into the balance sheet above.

1.2 Assume the company's corporate tax was at 40% and cost of capital was 10%, calculate the following measures of shareholders' wealth and provide the meaning.

A) Market Value Added (MVA) and Market-to-Book ratio

ANSWER

$$\begin{aligned}
 \text{Market Value Added (MVA)} &= \text{Market Value} - \text{Book Value} \\
 &= (150,000) \times (5.15) - 600,000
 \end{aligned}$$

$$= \underline{\$172,500}$$

MVA shows that market value of the company is greater than its book value (as measured by total equity) at \$172,500.

$$\begin{aligned} \text{Market-to-Book Ratio} &= \frac{150,000 \times 5.15}{600,000} \\ &= \underline{1.2875 \text{ times}} \end{aligned}$$

Market-to-Book Ratio shows that market value of the company is higher than its book value (as measured by total equity) around 1.2875 times.

B) Economic Value Added (EVA)

ANSWER

$$\begin{aligned} \text{Economic Value Added (EVA)} &= \text{EBIT} \times (1-t) - [(\text{Capital}) \times (\text{Cost of capital})] \\ &= 200,000 \times (1-40\%) \\ &\quad - [(600,000+600,000) \times 10\%] \\ &= 120,000 - 120,000 = \underline{\mathbf{0}} \end{aligned}$$

The calculated Economic Value Added (EVA) shows that the company has no economic profit since its profit earned is equal to cost of all financing from total capital. That is, there is no excess return of the company over its cost of capital.

Question 2:

Win Hom Railroad, a public transportation company, would like to form a complete Balance Sheet and Income Statement for the year end 2013. However, some of the entries were missing. The only available data were financial ratios which could help the finance department to work out.

2013 INCOME STATEMENT (Unit: Million US\$)

Net sales	180.00
Cost of goods sold	110.00
Selling, general, and administrative expenses	10.00
Depreciation	20.00
Earnings before interest and taxes (EBIT)	40.00
Interest expense	5.00
Income before tax	35.00
Tax	10.50
Net income	24.50

2013 BALANCE SHEET (Unit: Million US\$)

	2013
Assets	11.00
Cash and marketable securities	44.00
Receivables	22.00
Inventories	77.00
Total current assets	38.00
Net property, plant, and equipment	115.00
Total assets	11.00

Liabilities and shareholders' equity	
Accounts payable	25
Notes payable	30
Total current liabilities	55.00
Long-term debt	23.00
Shareholders' equity	37.00
Total liabilities and shareholders' equity	115

2.1 Complete the 2013 Balance Sheet and Income Statement for Win Hom Railroad by using the financial ratios provided. Assume a 360-day year. Fill your answer into the Balance Sheet and the Income Statement on previous page.

Ratios	2013 Win Hom Railroad
Long-term debt ratio	0.20
Times interest earned	8.00
Current ratio	1.40
Quick ratio	1.00
Cash ratio	0.20
Return on assets	21.30%
Return on equity	66.22%
Inventory turnover	5.00
Average collection period	88.00 days

ANSWER

If we use company as a benchmark, the benchmark company should be within the same industry. Otherwise, we should compare the company's operating performance by benchmarking with the previous year(s).

2.2 Financial Manager of Win Hom Railroad wanted to measure overall performance of the company. She wondered whether the benchmark should be BangChak Hospital, which is a company in health service industry, or its own performance of the previous year. How would you suggest? Why?

Ratios	2013 Win Hom Railroad	2013 BangChak Hospital	2012 Win Hom Railroad
Long-term debt ratio	0.20	0.40	0.30
Times interest earned	8.00	5.00	6.50
Current ratio	1.40	2.00	1.20
Quick ratio	1.00	0.90	0.85
Cash ratio	0.20	0.75	0.25
Return on assets	21.30%	25.00%	20.00%
Return on equity	66.22%	45.00%	50.00%
Inventory turnover	5.00	10.00	3.00
Average collection period	88.00 days	28.00 days	75.00 days

2.3 Summarize the company's overall performance compared with an appropriate benchmark you suggested from (2.2).

ANSWER