

**Question 2:**

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	<b>160,000</b>
Account receivable	<b>200,000</b>	Accruals	20,000
Inventories	<b>225,000</b>	Total current liabilities	<b>300,000</b>
Total current assets	<b>\$480,000</b>	Long-term debt	<b>600,000</b>
Net fixed assets	<b>1,020,000</b>	Stockholders' equity	\$600,000
<b>Total assets</b>	<b>1,500,000</b>	<b>Total liabilities and stockholders' equity</b>	<b>1,500,000</b>

- (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.

2.1 Complete the 2013 balance sheet for O’Keefe Industries by using provided information.

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

2.2 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

$$\begin{aligned}\text{Market Value Added (MVA)} &= \text{Market Value} - \text{Book Value} \\ &= (150,000) \times (5.15) - 600,000 \\ &= \underline{\$172,500}\end{aligned}$$

**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)

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

**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.**