Valuation: Measuring and Managing the Value of Companies

Using Multiples to Triangulate Results

Chapter 14 Problems

1. Exhibit 14.12 presents market and profit data for three companies. Using this data, compute enterprise value to EBITDA and enterprise value to EBITA for Companies 1 and 2. Is the net difference between Company 1 and Company 2 the same for both ratios? If not, why might this be?

2. Exhibit 14.12 presents market and profit data for three companies. If Company 3 has nonopearting assets valued at $50 million, what is the company's enterprise-value-to-EBITDA and enterprise-value-to-EBITA multiples?

3. You are valuing multiple steady-state companies in the same industry. Company A is projected to earn $160 in EBITA, grow at 2 percent per year, and generate ROICs equal to 15 percent. Company Bis projected to earn $100 in EBITA, grow at 6 percent per year, and generate ROICs equal to 10 percent. Both companies have an operating tax rate of 25 percent and a cost of capital of 10 percent. What are the enterprise-value-EBITA multiples for both companies? Does higher growth lead to a higher multiple in this case?

4. You are valuing multiple steady-state companies in the same industry. Company A is projected to earn $160 in EBITA, grow at 2 percent per year, and generate ROICs equal to 15 percent. Company C is projected to earn $120 in EBITA, grow at 5 percent per year, and generate ROICs equal to 12 percent. Both companies have an operating tax rate of 25 percent and a cost of capital of 10 percent. What are the enterprise-value-EBITA multiples for both companies? Does higher growth lead to a higher multiple in this case? Why do the results differ between Questions 4 and 5?

5. Two companies have the same long-term prospects concerning growth and ROIC. One of the companies temporarily stumbles during a new product launch, and profits drop considerably as the company scrambles to fix the error. Which company is likely to have the higher multiple and why?

6. LeverCo is financed entirely by equity. The company generates operating profit equal to $80 million. LeverCo currently trades at an equity value of $900 million. At a tax rate of 25 percent, what is the price-to-earnings multiple for LeverCo? New management decides to increase leverage through a share repurchase. The company issues a $400 million bond to retire $400 million in equity. If the bond pays interest at 5 percent, what is the company's new price-to-earnings ratio? How can you predict the direction the P/E ratio will move without performing the calculation?

Exhibit 14.12 **Multiples Analysis: Market and Profit Data**

$ million

Market data	**Company 1**	**Company 2**	**Company 3**
Share price ($)	25	16	30
Shares outstanding (millions)	5	8	15
Short-term debt	25	15	30
Long-term debt	50	70	40
Operating profits			
EBITDA	25	30	59
EBITA	22	23	51