

## CHAPTER 26

# APPLICATIONS OF FINANCIAL STATEMENT ANALYSIS

1. (B) an increase in gross margins greater than the increase in operating margins.

### Explanation

A shift to premium, rather than commodity-like, products should result in higher gross margins, higher average revenue per unit (selling price per unit), and an increase in gross margins relative to operating margins (because of the increase in R&D and marketing expenditures). A successful shift to a premium product should increase operating margins rather than increase operating income through increased unit sales. Revenue would not necessarily increase as the company shifted to premium products.

(Study Session 8, Module 26.1, LOS 26.a)

### Related Material

[Schweser Notes - Book 2](#)

2. (A) specific industries are often over-represented.

### Explanation

It is often the case a screening metric, such as low P/E, high dividend yield, or high ROE, will identify many stocks in the same industry. Undesirable characteristics can be avoided by including additional screening metrics. Financial statement measures provide a great amount of information about a firm's characteristics.

### For Further Reference:

(Study Session 8, Module 26.2, LOS 26.d)

CFA® Program Curriculum, Volume 3, page 578

### Related Material

[Schweser Notes - Book 2](#)

3. (C) \$26,000 \$2,600

### Explanation

FIFO ending inventory = LIFO ending inventory + LIFO reserve  
 = 22,000 + 4,000 = \$26,000

FIFO after-tax profit = LIFO after-tax profit + (change in LIFO reserve)(1 - t)  
 = \$2,000 + (\$1,000) (1 - 0.4) = \$2,000 + \$600 = \$2,600

(Study Session 8, Module 26.2, LOS 26.e)

### Related Material

[Schweser Notes - Book 2](#)

4. (B) **Present value of future operating lease payments.**

**Explanation**

Before calculating ratios involving liabilities, an analyst should estimate the present value of operating lease obligations and add this value to the firm's liabilities.

(Study Session 8, Module 26.2, LOS 26.e)

**Related Material**

[Schweser Notes - Book 2](#)

5. (B) **\$36 million \$54 million**

**Explanation**

2007 FIFO inventory was \$36 million (\$20 million LIFO inventory + \$16 million reserve). 2007 FIFO COGS was \$54 million (\$64 million LIFO COGS - \$10 million increase in LIFO reserve).

(Study Session 8, Module 26.2, LOS 26.e)

**Related Material**

[Schweser Notes - Book 2](#)

6. (A) **Noncash working capital as a percentage of sales.**

**Explanation**

To estimate pro forma cash flows, the analyst must make assumptions about future sources and uses of cash. The most important of these will be increases in working capital, capital expenditures on new fixed assets, issuance or repayments of debt, and issuance or repurchase of stock. A typical assumption is that noncash working capital will remain constant as a percentage of sales.

(Study Session 8, Module 26.1, LOS 26.b)

**Related Material**

[Schweser Notes - Book 2](#)

7. (B) **appropriate.**

**Explanation**

Sales estimates can be more sophisticated than simply estimating a single growth rate. One common approach is to estimate the linear relationship between sales growth and economic growth and use this relationship to estimate sales growth based on economists' forecasts of GDP growth. Segment-by-segment analysis can also be applied, summing segment or division sales forecasts to produce an overall sales forecast for the firm.

(Study Session 8, Module 26.1, LOS 26.b)

**Related Material**

[Schweser Notes - Book 2](#)

**8. (A) \$4.0 million No**

**Explanation**

2008 sales are expected to be \$30 million (\$20 million 2007 sales x 1.5) and 2008 net income is expected to be \$4.5 million (\$30 million 2008 sales x 15%). 2007 non-cash operating working capital was \$4 million (\$20 million 2007 sales x 20%) and 2008 non-cash operating working capital is expected to be \$7.5 million (\$30 million 2008 sales x 25%). 2008 operating cash flow is expected to be \$4 million (\$4.5 million 2008 net income + \$3 million 2008 depreciation - \$3.5 million increase in non-cash operating working capital). Forecasts for small firms, start-ups, or firms operating in volatile industries may be less reliable than a forecast for a large, well diversified, firm operating in mature industries.

(Study Session 8, Module 26.1, LOS 26.b)

**Related Material**

[Schweser Notes - Book 2](#)

**9. (A) \$3.0 million source of cash.**

**Explanation**

2007 inventory turnover was 5 (365 / 73 days in inventory). Given inventory turnover and COGS, 2007 average inventory was \$20 million (\$100 million COGS / 5 inventory turnover). 2008 inventory turnover is expected to be 7.3 (365 / 50 days in inventory). Given expected inventory turnover, 2008 average inventory is \$17 million (\$124.1 million COGS / 7.3 expected inventory turnover). To achieve 50 days of inventory on hand, average inventory must decline \$3 million (\$20 million 2007 average inventory - \$17 million 2008 expected inventory). A decrease in inventory is a source of cash.

(Study Session 8, Module 26.1, LOS 26.b)

**Related Material**

[Schweser Notes - Book 2](#)

**10. (C) high price-to-earnings ratios.**

**Explanation**

Value stocks are considered to be those that have low prices relative to earnings (or relative to sales, cash flow, or book value). Screens that exclude firms with low earnings growth rates or high dividend payout ratios are more likely to be used to identify growth stocks.

(Study Session 8, Module 26.2, LOS 26.d)

**Related Material**

[Schweser Notes - Book 2](#)

**11. (A) lower depreciation expense and higher net income.**

**Explanation**

Estimates of useful lives or salvage values that are too high will result in lower depreciation expense and higher net income.

(Study Session 8, Module 26.2, LOS 26.e)

**Related Material**

[Schweser Notes - Book 2](#)

**12. (A) \$30 million.**

**Explanation**

2008 sales are expected to be \$600 million (\$500 million 2007 sales x 1.2) and 20X8 net income is expected to be \$30 million (\$600 million 20X8 sales x 5%). 2008 non-cash operating working capital is expected to be \$120 million (\$600 million 20X8 sales x 20%). The change in cash is expected to be -\$5 million (\$30 million 20X8 net income + \$60 million 20X8 depreciation - \$20 million increase in non-cash operating working capital - \$75 million 20X8 capital expenditures). The 20X8 ending balance of cash is expected to be \$30 million (\$35 million beginning cash balance - \$5 million decrease in cash).

(Study Session 8, Module 26.1, LOS 26.b)

**Related Material**

[Schweser Notes - Book 2](#)

**13. (B) Ratio #1 Ratio #3**

**Explanation**

A firm's tolerance for additional debt can be measured by its capacity to repay debt. Retained cash flow divided by total debt is one of several measures that can be used. Operational efficiency refers to the firm's cost structure and can be measured by the "margin" ratios. EBITDA divided by sales is one version of an operating margin ratio. The current ratio is a measure of short-term liquidity.

(Study Session 8, Module 26.2, LOS 26.c)

**Related Material**

[Schweser Notes - Book 2](#)

**14. (A) adding the LIFO reserve.**

**Explanation**

LIFO ending inventory can be adjusted to a FIFO basis by adding the LIFO reserve, which a firm using LIFO must disclose in the notes to its financial statements.

(Study Session 8, Module 26.2, LOS 26.e)

**Related Material**

[Schweser Notes - Book 2](#)

15. (C) \$2.17 \$2.06

**Explanation**

Company A should be adjusted for the operating lease liability and the related assets; however, adding the present value of the lease payments to both assets and liabilities does not change equity (book value). Thus, Company A's adjusted P/B ratio is  $2.17 = [\text{\$26 price} / (\text{\$6,000 million equity} / 500 \text{ million shares})]$ . Company B's inventory should be adjusted back to FIFO by adding the LIFO reserve to both assets and equity. Thus, Company B's P/B ratio is  $2.06 = \text{\$22.50} / [(\text{\$7,500 million equity} + \text{\$700 million LIFO reserve}) / 750 \text{ million shares}]$ .

(Study Session 8, Module 26.2, LOS 26.e)

**Related Material**

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16. (B) Decrease assets and increase earnings.

**Explanation**

The recommended adjustment for goodwill before calculating financial ratios is to remove goodwill from the balance sheet (decreasing assets) and reverse any losses recognized due to goodwill impairment (increasing earnings).

(Study Session 8, Module 26.2, LOS 26.e)

**Related Material**

[Schweser Notes - Book 2](#)

17. (B) increase the debt-to-equity ratio to 0.67.

**Explanation**

Shareholders' equity =  $\text{\$35 million} / 0.5 = \text{\$70 million}$ . The most appropriate analyst adjustment for an operating lease is to add the present value of lease payments to the firm's assets and long-term debt (leaving equity unchanged). This will result in a debt-to-equity ratio of  $(\text{\$35 million} + \text{\$12 million}) / \text{\$70 million} = 0.6714$ .

(Study Session 8, Module 26.2, LOS 26.e)

**Related Material**

[Schweser Notes - Book 2](#)

18. (B) Accelerated depreciation, if peer companies use straight-line depreciation.

**Explanation**

Estimated useful life of PP&E assets (gross PP&E / annual depreciation expense) is likely to be lower for a company that uses an accelerated depreciation method than for a company that uses straight-line depreciation. Higher salvage values would decrease annual depreciation expense and increase estimated useful life. The cost model is identical under IFRS and U.S. GAAP.

(Study Session 8, Module 26.2, LOS 26.e)

**Related Material**

[Schweser Notes - Book 2](#)

19. (C) **First-in, First-out Straight-line**

**Explanation**

FIFO results in higher assets and higher equity in an inflationary environment as compared to LIFO. Equity is higher because COGS is lower (and inventory higher) under FIFO. Straight-line depreciation will result in greater assets and equity compared to accelerated depreciation for a stable or growing firm. Equity is greater because depreciation expense is less with straight-line depreciation. Greater equity will result in greater book value per common share, the denominator of the price-to-book ratio. Greater book value per share will result in a lower price-to-book ratio.

(Study Session 8, Module 26.2, LOS 26.e)

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20. (C) **Continental Continental**

**Explanation**

Continental likely has the highest gross profit margin percentage since it is selling a customized product and does not compete primarily based on price. Because of the research and development costs of developing a new hybrid motorcycle, Continental likely has the higher operating expense stated as a percentage of total cost.

(Study Session 8, Module 26.1, LOS 26.a)

**Related Material**

[Schweser Notes - Book 2](#)

21. (C) **only one is correct.**

**Explanation**

Margin stability is desirable from the lender's perspective for both floating-rate and fixed-rate debt. Higher volatility will increase credit risk. Product and geographic diversification should lower credit risk as the borrower is less sensitive to adverse events and conditions.

(Study Session 8, Module 26.2, LOS 26.c)

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22. (A) **be concentrated in specific industries.**

**Explanation**

A screen for firms with high dividend yields and high book-to-market ratios would likely result in an inordinate proportion of financial services companies and add a significant element of industry (sector) risk. Uncertainty about sustainability of dividend payments and recent market underperformance are typical characteristics of value stocks in general and not a drawback to using this screen to identify them.

(Study Session 8, Module 26.2, LOS 26.d)

**Related Material**

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**23. (A) Omega has lower interest coverage than Alpha.**

**Explanation**

Using the EBITDA coverage ratio (EBITDA / Interest expense), Omega's EBITDA coverage is 1.4 (\$79,300 EBITDA / \$58,100 interest expense) and Alpha's EBITDA coverage is 1.6 (\$69,400 EBITDA / \$44,000 interest expense). Using EBITDA to measure operating profit, Alpha has a lower operating profit margin than Omega. Alpha's EBITDA margin is 4.2% (\$69,400 EBITDA / \$1,650,000 revenue) and Omega's EBITDA margin is 5.5% (\$79,300 EBITDA / \$1,452,000 revenue). Using fixed asset turnover to measure the efficiency of fixed assets, Omega uses its fixed assets less efficiently than Alpha. Alpha's fixed asset turnover is 5.5 (\$1,650,000 revenue / \$300,000 average fixed assets) and Omega's fixed asset turnover is 4.5 (\$1,452,000 revenue / \$323,000 average fixed assets).

(Study Session 8, Module 26.2, LOS 26.c)

**Related Material**

[Schweser Notes - Book 2](#)

**24. (C) Large size and diverse product lines.**

**Explanation**

Other things equal, credit rating agencies tend to rate larger companies and those with diversified product lines and greater geographic diversification to be better credit risks.

(Study Session 8, Module 26.2, LOS 26.c)

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