

Chapter 2 Understanding Financial Statements

Financial Statement

2.1

(a)

- Current assets = \$150,000 + \$200,000 + \$150,000 + \$50,000 + \$30,000 = \$580,000
- Current liabilities = \$50,000 + \$100,000 + \$80,000 = \$230,000
- Working capital = \$580,000 - \$230,000 = \$350,000
- Shareholder's equity = \$100,000 + \$150,000 + \$150,000 + \$70,000 = \$470,000

(b) EPS = \$500,000/10,000 = \$50 per share

(c) Par value = \$15; capital surplus = \$150,000/10,000 = \$15;
Market price = \$15 + \$15 = \$30 per share

2.2

(a) Working capital = Current assets – Current liabilities;

Working capital requirements = Changes in current assets – Changes in current liabilities

$$\text{WC req.} = (+\$100,000 - \$20,000) - (+\$30,000 - \$40,000) = \$90,000$$

(b) Taxable income = \$1,500,000 - \$650,000 - \$150,000 - \$20,000 = \$680,000

(c) Net income = \$680,000 - \$272,000 = \$408,000

(d) Net cash flow:

A. Operating activities = net income + depreciation – W.C. required =
\$408,000 + \$200,000 - \$90,000 = \$518,000

B. Investing activities = equipment purchase = (\$400,000)

C. Financing activities = borrowed funds = \$200,000

D. Net cash flow = \$518,000 - \$400,000 + \$200,000 = \$318,000

2.3

(a)

$$\text{ROE}_A = \frac{168}{800} = 21\%$$

$$\text{ROE}_B = \frac{240}{400} = 60\%$$

$$ROA_A = \frac{168 + 20(1 - 0.4)}{1,000} = 18\%$$

$$ROA_B = \frac{240 + 160(1 - 0.4)}{2,000} = 16.8\%$$

- (b) Because company has higher income but less equity than that of company A. No, it is just one criterion, so we cannot say that. Further investigation must be conducted.

(c)

$$ROE_{merge} = \frac{408}{1200} = 34\%$$

Merge and Acquisition situation between companies A and B .

2.4

(a) Debt ratio = $\$18,542,000 / \$39,572,000 = 46.86\%$

(b) Time-interest-earned ratio: N/A

(c) Current ratio = $\$34,690,000 / \$14,092,000 = 2.46$ times

(d) Quick ratio = $(\$34,690,000 - \$509,000) / \$14,092,000 = 2.43$ times

(e) Inventory-turnover ratio = $\$32,479,000 / (\$509,000 + \$346,000) / 2 = 75.97$ times

(f) DSO = $(\$6,151,000) / (\$32,479,000 / 365) = 69.13$ days

(g) Total-assets-turnover ratio = $\$32,479,000 / \$39,572,000 = 0.82$ times

(h) Profit margin on sales = $\$4,834,000 / \$32,479,000 = 14.88\%$

(i) Return on Total assets = $\frac{\$4,834,000 + \$0}{(\$39,572,000 + \$25,347,000) / 2} = 14.89\%$

(j) Return on Common equity = $\frac{\$4,834,000}{(\$21,030,000 + \$14,532,000) / 2} = 27.19\%$

(k) Price-earnings ratio = $\$128.24 / (\$4,834,000,000 / 892,110,000) = \23.66
(Note: The *average* total number of outstanding shares in year 2009: 892.11 M)

(l) Book value per share = $(\$21,030,000,000 - 0) / 892,110,000 = \23.57

2.5

- (a) Debt ratio = $\$9,498,000 / \$10,946,000 = 86.77\%$
- (b) Time-interest-earned ratio = $(\$1,941,000 + \$308,000) / \$308,000 = 7.3$ times
- (c) Current ratio = $\$2,521,000 / \$3,552,000 = 0.71$ times
- (d) Quick ratio = $(\$2,521,000 - \$897,000) / \$3,552,000 = 0.46$ times
- (e) Inventory-turnover ratio = $\frac{\$12,822,000}{(\$897,000 + \$924,000) / 2} = 14.08$ times
- (f) DSO = $(\$1,100,000) / (\$12,822,000 / 365) = 31.31$ days
- (g) Total-assets-turnover ratio = $\$12,822,000 / \$10,946,000 = 1.17$ times
- (h) Profit margin on sales = $\$1,148,000 / \$12,822,000 = 8.95\%$
- (i) Return on total assets = $\frac{\$1,148,000 + \$308,000(1 - 0.4)}{(\$10,946,000 + \$11,397,000) / 2} = 11.93\%$
- (j) Return on common equity = $\frac{\$1,148,000}{(\$1,448,000 + \$2,526,000) / 2} = 57.78\%$
- (k) Price-earnings ratio = $\$44.65 / (\$1,148,000,000 / 382,500,000) = \14.88
(Note: The *average* total outstanding number of shares in year 2009: 382.5M)
- (l) Book value per share = $\$1,448,000,000 / 382,500,000 = \3.79

2.6

Given R.C.'s EPS = \$8 per share; Cash dividend = \$4 per share; Book value per share = \$80; Changes in the retained earnings = \$24 million; Total debt = \$240 million; Find debt ratio = total debt/total assets

$$EPS = \frac{\text{Net Income}}{X} = \$8$$

where X = the number of outstanding shares

$$\text{Book value} = \frac{\text{Total shareholders' equity}}{X} = \$80$$

Retained earnings = Net income – Cash dividend; Net income = $8X$ from EPS relationship and the total cash dividend = $4X$, so we rewrite $8X - 4X = \$24$ million, or $X = 6$ million shares

From book value per share, we know that total shareholders' equity = $80X$, or \$480 million; Total assets = Total liabilities + Total shareholders' equity = \$240 million + \$480 million = \$720 million

$$\text{Debt ratio} = \$240 \text{ million} / \$720 \text{ million} = 33.33\%$$

2.7 (b)

2.8 (b)

2.9 (d)

2.10 (b)