

## 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)