# 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
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 $= \dfrac{\$12,822,000}{(\$897,000 + \$924,000)/2} = 14.08$ 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 $= \dfrac{\$1,148,000 + \$308,000(1-0.4)}{(\$10,946,000 + \$11,397,000/2} = 11.93\%$

(j) Return on common equity $= \dfrac{\$1,148,000}{(\$1,448,000 + \$2,526,000)/2} = 57.78\%$

(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 = 8$X$ from EPS relationship and the total cash dividend = 4$X$, so we rewrite 8$X$ – 4$X$ = $24 million, or $X$ = 6 million shares

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

Debt ratio = $240 million/$720 million = 33.33%

2.7 (b)

2.8 (b)

2.9 (d)

2.10 (b)