

FINANCIAL RATIOS

ROUND ALL ANSWERS TO TWO DECIMALS
UNLESS REQUESTED OTHERWISE IN THE PROBLEM

LIQUIDITY RATIOS (and Working Capital)

You want current and quick ratios to be > 1

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \quad \#$$

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}} \quad \#$$

$$\text{Cash Ratio} = \frac{\text{Cash} + \text{Cash Equiv.} + \text{Investments}}{\text{Current Liabilities}} \quad \#$$

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities} \quad \$$$

ASSET MANAGEMENT RATIOS

You want turnover ratios to be as high as possible

$$\text{Inventory Turnover Ratio} = \frac{\text{Sales (or Revenues)}}{\text{Inventory}} \quad \#$$

$$\text{Total Assets Turnover Ratio} = \frac{\text{Sales (or Revenues)}}{\text{Total Assets}} \quad \#$$

$$\text{Accounts Receivable Turnover Ratio} = \frac{\text{Sales (or Revenues)}}{\text{Accounts Receivable}^*} \quad \#$$

* same as net receivables

DEBT MANAGEMENT RATIOS

You want debt ratio to be low and TIE ratio to be high

$$\text{Debt Ratio} = \frac{\text{Total Debt}^*}{\text{Total Assets}} \quad \#$$

* all payables plus long-term debt

$$\text{Times Interest Earned Ratio} = \frac{\text{Income from Operations}}{\text{Interest Expense}} \quad \#$$

PROFITABILITY RATIOS

You want all profitability ratios to be high

$$\text{Profit Margin on Sales Ratio} = \frac{\text{Net Income}}{\text{Sales (or Revenues)}} \quad \%$$

$$\text{ROA} = \text{Return on Assets Ratio} = \frac{\text{Net Income}}{\text{Total Assets}} \quad \%$$

(ROA is sometimes called "Return on Investment")

$$\text{ROE} = \text{Return on Equity Ratio} = \frac{\text{Net Income}}{\text{Stockholders' Equity}} \quad \%$$

MARKET PERFORMANCE RATIOS

You want EPS to be high; P/E depends on the industry

$$\text{EPS} = \text{Earnings Per Share} = \frac{\text{Net Income}}{\text{\# of Shares Issued}} \quad \$$$

$$\text{P/E Ratio} = \text{Price Earnings Ratio} = \frac{\text{Stock Price}}{\text{Earnings Per Share}} \quad \#$$

$$\text{Market to Book Ratio} = \frac{\text{Market Stock Price}}{\text{Book Value Per Share}^*} \quad \#$$

* book value per share is calculated by dividing stockholders' equity by the number of shares issued.

Ratio Analysis

SAMPLE BALANCE SHEET

ASSETS

Current Assets

Cash	\$	100
Accounts Receivable		200
Pre-Paid Expenses		100
Inventory		150
Supplies		50
Total Current Assets		600

Long-Term Assets

Equipment		650
Less: Accumulated Depreciation		(500)
Total Long-Term Assets		9,400

Total Assets \$ 10,000

LIABILITIES AND OWNERS' EQUITY

Current Liabilities

Accounts Payable*	\$	900
Other Payables*		550
Total Current Liabilities		1,600

Long-Term Liabilities

Long-Term Debt*		4,500
Other LT Liabilities		1,000
Total Long-Term Liabilities		5,500

Stockholders' Equity

Common Stock		2,000
Retained Earnings		900
Total Stockholders' Equity		2,900

Total Liabilities & Stockholders' Equity \$ 10,000

* Included in Total Debt

SAMPLE INCOME STATEMENT

Sales (or Revenues)	\$	1,000
Cost of Goods Sold		<u>300</u>
Gross Profit		700
Operating Expenses:		
Expense #1		25
Expense #2		50
Interest Expense		<u>125</u>
Income from Operations		500
Unusual Items: Gains or (Losses)		<u>(100)</u>
Income Before Taxes		400
Income Tax Expense		<u>100</u>
Net Income		<u>\$ 300</u>