Ratio Analysis

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

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

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

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

Working Capital = Current Assets – Current Liabilities $

ASSET MANAGEMENT RATIOS

You want turnover ratios to be as high as possible

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

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

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

* same as net receivables

DEBT MANAGEMENT RATIOS

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

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

* all payables plus long-term debt

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

PROFITABILITY RATIOS

You want all profitability ratios to be high

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

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

(ROA is sometimes called "Return on Investment")

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

MARKET PERFORMANCE RATIOS

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

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

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

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

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

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		300
Gross Profit		700
Operating Expenses:		
Expense #1	25	
Expense #2	50	
Interest Expense	125	200
Income from Operations		500
Unusual Items: Gains or (Losses)		(100)
Income Before Taxes		400
Income Tax Expense		100
Net Income		$ 300