

The following is information concerning ABC Company and XYZ Company.

	ABC Company	XYZ Company
CURRENT ASSETS:		
Cash	18,700	33,000
Accounts and Notes Receivable	43,000	59,800
Merchandise Inventory	88,600	119,700
Prepaid Expenses	4,200	6,200
CAPITAL ASSETS:		
Pledged Plant & Equipment (Net)	284,100	288,600
	438,600	507,300
CURRENT LIABILITIES:		
Accounts Payable	35,300	64,700
Short Term Notes	25,000	30,000
LONG TERM LIABILITIES:		
Long Term Notes (Secured)	80,000	100,000
EQUITY:		
Common Shares	175,000	180,000
Retained Earnings	123,300	132,600
	438,600	507,300
Number of Common Shares	17,500	18,000

Data from Current Year Income Statement:

Sales	625,000	780,500
Cost of Goods Sold	372,500	465,200
Interest Expense	8,000	11,000
Income Tax Expense	13,800	21,900
Net Income	75,300	95,800

Beginning of Year and Other Data:

Accounts Receivable	28,800	52,900
Merchandise Inventory	54,900	101,000
Total Assets	388,100	422,500
Common Shares	175,000	180,000
Retained Earnings	100,500	90,800
Market Value per Share	40	30
Dividend per Share	3.00	3.00

Calculate the following ratios and underline the company's ratio that you believe is the best:

Working Paper:

Current Ratio = Current Assets / Current Liabilities

ABC Company =

XYZ Company =

Quick Ratio = Quick Assets / Current Liabilities

ABC Company =

XYZ Company =

Accounts Receivable Turnover = Sales / Average Receivables

ABC Company =

XYZ Company =

Merchandise Inventory Turnover = Cost of Goods / Average Inventory

ABC Company =

XYZ Company =

Days Sales Uncollected = Accounts Receivable / Sales X 365

ABC Company =

XYZ Company =

Days Stock in Inventory = Inventory / Cost of Goods X 365

ABC Company =

XYZ Company =

Debt Ratio = Total Liabilities / Total Assets X 100

ABC Company =

XYZ Company =

Equity Ratio = Total Equity / Total Assets X 100

ABC Company =

XYZ Company =

Pledged Assets to Secured Liabilities = Pledged Assets / Secured Liabilities

ABC Company =

XYZ Company =

Times Interest Earned = (Net Income + Income Tax + Interest Expense) / Interest Expense

ABC Company =

XYZ Company =

Gross Margin = (Sales – Cost of Goods) / Sales X 100

ABC Company =

XYZ Company =

Profit Margin = Net Income / Sales X 100

ABC Company =

XYZ Company =

Total Asset Turnover = Sales / Average Total Assets

ABC Company =

XYZ Company =

Return on Total Assets = Net Income / Average Total Assets X 100

ABC Company =

XYZ Company =

Return on Equity = Net Income / Average Shareholders Equity X 100

ABC Company =

XYZ Company =

Book Value per Share = Common Share Dollars / Number of Common Shares

ABC Company =

XYZ Company =

Earnings per Share = Net Income / Number of Shares

ABC Company =

XYZ Company =

Price Earnings Ratio = Market Value per Share / Earnings per Share

ABC Company =

XYZ Company =

Dividend Yield = Dividend per Share / Market Value per Share X 100

ABC Company =

XYZ Company =

Answer:

Current Ratio = Current Assets / Current Liabilities

$$\text{ABC Company} = (18,700 + 43,000 + 88,600 + 4,200) / (35,300 + 25,000) = \underline{\underline{\mathbf{2.56 : 1}}}$$

$$\text{XYZ Company} = (33,000 + 59,800 + 119,700 + 6,200) / (64,700 + 30,000) = \underline{\underline{\mathbf{2.31 : 1}}}$$

Quick Ratio = Quick Assets / Current Liabilities

$$\text{ABC Company} = (18,700 + 43,000) / (35,300 + 25,000) = \underline{\underline{\mathbf{1.02 : 1}}}$$

$$\text{XYZ Company} = (33,000 + 59,800) / (64,700 + 30,000) = \underline{\underline{\mathbf{0.98 : 1}}}$$

Accounts Receivable Turnover = Sales / Average Receivables

$$\text{ABC Company} = 625,000 / [(28,800 + 43,000) / 2] = \underline{\underline{\mathbf{17.41 \text{ Times}}}}$$

$$\text{XYZ Company} = 780,500 / [(52,900 + 59,800) / 2] = \underline{\underline{\mathbf{13.85 \text{ Times}}}}$$

Merchandise Inventory Turnover = Cost of Goods / Average Inventory

$$\text{ABC Company} = 372,500 / [(54,900 + 88,600) / 2] = \underline{\underline{\mathbf{5.19 \text{ Times}}}}$$

$$\text{XYZ Company} = 465,200 / [(101,000 + 119,700) / 2] = \underline{\underline{\mathbf{4.22 \text{ Times}}}}$$

Days Sales Uncollected = Accounts Receivable / Sales X 365

$$\text{ABC Company} = 43,000 / 625,000 \times 365 = \underline{\underline{\mathbf{25.11 \text{ Days}}}}$$

$$\text{XYZ Company} = 59,800 / 780,500 \times 365 = \underline{\underline{\mathbf{27.97 \text{ Days}}}}$$

Days Stock in Inventory = Inventory / Cost of Goods X 365

$$\text{ABC Company} = 88,600 / 372,500 \times 365 = \underline{\underline{\mathbf{86.82 \text{ Days}}}}$$

$$\text{XYZ Company} = 119,700 / 465,200 \times 365 = \underline{\underline{\mathbf{93.92 \text{ Days}}}}$$

Debt Ratio = Total Liabilities / Total Assets X 100

$$\text{ABC Company} = (35,300 + 25,000 + 80,000) / 438,600 \times 100 = \underline{\underline{\mathbf{31.99\%}}}$$

$$\text{XYZ Company} = (64,700 + 30,000 + 100,000) / 507,300 \times 100 = \underline{\underline{\mathbf{38.38\%}}}$$

Equity Ratio = Total Equity / Total Assets X 100

$$\text{ABC Company} = (175,000 + 123,300) / 438,600 \times 100 = \underline{\underline{\mathbf{68.01\%}}}$$

$$\text{XYZ Company} = (180,000 + 132,600) / 507,300 \times 100 = \underline{\underline{\mathbf{61.62\%}}}$$

Pledged Assets to Secured Liabilities = Pledged Assets / Secured Liabilities

$$\text{ABC Company} = 284,100 / 80,000 = \underline{\underline{\mathbf{3.55 : 1}}}$$

$$\text{XYZ Company} = 288,600 / 100,000 = \underline{\underline{\mathbf{2.89 : 1}}}$$

Times Interest Earned = (Net Income + Income Tax + Interest Expense) / Interest Expense

$$\text{ABC Company} = (75,300 + 13,800 + 8,000) / 8,000 = \underline{\underline{\mathbf{12.14 \text{ Times}}}}$$

$$\text{XYZ Company} = (95,800 + 21,900 + 11,000) / 11,000 = \underline{\underline{\mathbf{11.70 \text{ Times}}}}$$

Gross Margin = (Sales – Cost of Goods) / Sales X 100

$$\text{ABC Company} = (625,000 - 372,500) / 625,000 \times 100 = \underline{\underline{\mathbf{40.40\%}}}$$

$$\text{XYZ Company} = (780,500 - 465,200) / 780,500 \times 100 = \underline{\underline{\mathbf{40.40\%}}}$$

Profit Margin = Net Income / Sales X 100

ABC Company = $75,300 / 625,000 \times 100 = 12.05\%$

XYZ Company = $95,800 / 780,500 \times 100 = \underline{12.27\%}$

Total Asset Turnover = Sales / Average Total Assets

ABC Company = $625,000 / [(388,100 + 438,600) / 2] = 1.51 \text{ Times}$

XYZ Company = $780,500 / [(422,500 + 507,300) / 2] = \underline{1.68 \text{ Times}}$

Return on Total Assets = Net Income / Average Total Assets X 100

ABC Company = $75,300 / [(388,100 + 438,600) / 2] \times 100 = 18.22\%$

XYZ Company = $95,800 / [(422,500 + 507,300) / 2] \times 100 = \underline{20.61\%}$

Return on Equity = Net Income / Average Shareholders Equity X 100

ABC Company = $75,300 / \{[(175,000 + 100,500) + (175,000 + 123,300)] / 2\} \times 100 = 26.25\%$

XYZ Company = $95,800 / \{[(180,000 + 90,800) + (180,000 + 132,600)] / 2\} \times 100 = \underline{32.84\%}$

Book Value per Share = Common Share Dollars / Number of Common Shares

ABC Company = $175,000 / 17,500 = \$10.00$ (Neither one is

XYZ Company = $180,000 / 18,000 = \$10.00$ Good or Bad.)

Earnings per Share = Net Income / Number of Shares

ABC Company = $75,300 / 17,500 = \$4.30$

XYZ Company = $95,800 / 18,000 = \underline{\$5.32}$

Price Earnings Ratio = Market Value per Share / Earnings per Share

ABC Company = $40 / 4.30 = 9.30: 1$

XYZ Company = $30 / 5.32 = \underline{5.64: 1}$

Dividend Yield = Dividend per Share / Market Value per Share X 100

ABC Company = $3.00 / 40 \times 100 = 7.50\%$

XYZ Company = $3.00 / 30 \times 100 = \underline{10.00\%}$