II. TREND ANALYSIS

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	1999	2000	2001	2002	PROJECTED 2003
Sales	$200,000	$320,000	$410,000	$479,600	$527,600
Change		$120,000	$ 90,000	$ 69,600	$ 48,000
% Change		60%	28%	17%	10%

III. RATIO ANALYSIS

The following analysis uses data from this Learning Unit and pages 108 and 118.

LIQUIDITY RATIOS for 2002
($ 000)

Current Ratio $\dfrac{\text{Current Assets}}{\text{Current Liabilities}} = \dfrac{219}{63} = 3.48$

Quick Ratio $\dfrac{\text{Current Assets - Inventory}}{\text{Current Liabilities}} = \dfrac{219-80}{63} = 2.2$

Liquidity ratios measure the ability of a company to pay current liabilities. Because the return on current assets is low, a high ratio may lead to a low return on assets. A low ratio means a company may be unable to pay creditors.

ACTIVITY RATIOS

Accounts Receivable Turnover $\dfrac{\text{Net Receivable Sales}}{\text{Average Net Accounts Receivable}} = \dfrac{479.6}{\frac{50 + 90}{2}} = 6.85$ times

Average Collection Period $\dfrac{\text{Average Net Accounts Receivable}}{\frac{\text{Net Receivable Sales}}{365}} = \dfrac{\frac{50 + 90}{2}}{\frac{479.6}{365 \text{ days}}} = \dfrac{70}{1.314} = 53.3$ days

Inventory Turnover $\dfrac{\text{Cost of Goods Sold}}{\text{Average Inventory}} = \dfrac{285}{\frac{90 + 80}{2}} = 3.35$ times

Fixed Asset Turnover $\dfrac{\text{Net Sales}}{\text{Average Fixed Assets}} = \dfrac{479.6}{\frac{230 + 260}{2}} = 1.96$ times

Activity ratios measure the operational management capabilities of a company. Receivable policy should be flexible enough to generate sales while keeping bad debts to a minimum. Inventory should be high enough to provide variety and quick delivery while keeping inventory carry costs to a minimum. Fixed assets like computers should increase efficiency, causing more profitable sales.

PROFITABILITY RATIOS

Return on Sales $\dfrac{\text{Operating Income}}{\text{Net Sales}} = \dfrac{84.6}{479.6} = 17.6\%$

Return on Assets $\dfrac{\text{Operating Income}}{\text{Average Total Assets}} = \dfrac{84.6}{\frac{469 + 529}{2}} = 17.0\%$

Return on Equity/Common Stock $\dfrac{\text{Operating Income} - \text{Preferred Dividends}}{\text{Average Common Stock Equity}} = \dfrac{84.6 - 8}{\frac{100 + 87}{2}} = 81.9\%$

Return on Common Stock equity is the single most important measure of the current financial success of a company. Other ratios presented in this learning unit will help analyze the risk and expected variability associated with this return.

Note: Preferred Dividend from page 112.

LEVERAGE RATIOS

Debt/Equity Ratio $\dfrac{\text{Total Liabilities}}{\text{Stockholders' Equity}} = \dfrac{163}{366} = 44.5\%$

Debt/Asset Ratio $\dfrac{\text{Total Liabilities}}{\text{Assets}} = \dfrac{163}{529} = 30.8\%$

Leverage is the use of debt to generate income. Generally the higher the debt in relation to equity, the higher the leverage, the higher the possible return, and the higher the risk.

Times Interest Earned $\dfrac{\text{Operating Income} + \text{Net Interest} + \text{Income Tax Expense}}{\text{Net Interest}} = \dfrac{84.6 + 9 + 20}{9} = 12.6$ times

Note: Formulas for these ratios differ slightly from one source to another.

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