APPENDIX 'A'

Table 4.1: Key Financial Ratios: How to Calculate Them and What They Mean

Ratio	How Calculated	What It Shows
Profitability ratios		
1. Gross profit margin	$\frac{\text{Revenues} - \text{Cost of goods sold}}{\text{Revenues}}$	Shows the percentage of revenues available to cover operating expenses and yield a profit. Higher is better, and the trend should be upward.
2. Operating profit margin (or return on sales)	$\frac{\text{Revenues} - \text{Operating expenses}}{\text{Revenues}}$ or $\frac{\text{Operating income}}{\text{Revenues}}$	Shows the profitability of current operations without regard to interest charges and income taxes. Higher is better, and the trend should be upward.
3. Net profit margin (or net return on sales)	$\frac{\text{Profits after taxes}}{\text{Revenues}}$	Shows after-tax profits per dollar of sales. Higher is better, and the trend should be upward.
4. Return on total assets	$\frac{\text{Profits after taxes} + \text{Interest}}{\text{Total assets}}$	A measure of the return on total investment in the enterprise. Interest is added to after-tax profits to form the numerator, since total assets are financed by creditors as well as by stockholders. Higher is better, and the trend should be upward.
5. Return on stockholder's equity	$\frac{\text{Profits after taxes}}{\text{Total stockholders' equity}}$	Shows the return stockholders are earning on their investment in the enterprise. A return in the 12–15 percent range is average, and the trend should be upward.
6. Earnings per share	$\frac{\text{Profits after taxes}}{\text{Number of shares of common stock outstanding}}$	Shows the earnings for each share of common stock outstanding. The trend should be upward, and the bigger the annual percentage gains, the better.
Liquidity ratios		
1. Current ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	Shows a firm's ability to pay current liabilities using assets that can be converted to cash in the near term. Ratio should definitely be higher than 1.0; ratios of 2 or higher are better still.
2. Quick ratio (or acid-test ratio)	$\frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$	Shows a firm's ability to pay current liabilities without relying on the sale of its inventories.
3. Working capital	Current assets – Current liabilities	Bigger amounts are better because the company has more internal funds available to (1) pay its current liabilities on a timely basis and (2) finance inventory expansion, additional accounts receivable, and a larger base of operations without resorting to borrowing or raising more equity capital.
Leverage ratios		
1. Debt-to-assets ratio	$\frac{\text{Total debt}}{\text{Total assets}}$	Measures the extent to which borrowed funds have been used to finance the firm's operations. Low fractions or ratios are better—high fractions indicate overuse of debt and greater risk of bankruptcy.

Table 4.1: Key Financial Ratios: How to Calculate Them and What They Mean (2)

Ratio	How Calculated	What It Shows
2. Long-term debt-to-capital ratio	$\frac{\text{Long-term debt}}{\text{Long-term debt} + \text{Total stockholders' equity}}$	An important measure of creditworthiness and balance sheet strength. Indicates the percentage of capital investment which has been financed by creditors and bondholders. Fractions or ratios below .25 or 25% are usually quite satisfactory since monies invested by stockholders account for 75% or more of the company's total capital. The lower the ratio, the greater the capacity to borrow additional funds. Debt-to-capital ratios above 50% and certainly above 75% indicate a heavy and perhaps excessive reliance on debt, lower creditworthiness, and weak balance sheet strength.
3. Debt-to-equity ratio	$\frac{\text{Total debt}}{\text{Total stockholders' equity}}$	Should usually be less than 1.0. High ratios (especially above 1.0) signal excessive debt, lower creditworthiness, and weaker balance sheet strength.
4. Long-term debt-to-equity ratio	$\frac{\text{Long-term debt}}{\text{Total stockholders' equity}}$	Shows the balance between debt and equity in the firm's *long-term* capital structure. Low ratios indicate greater capacity to borrow additional funds if needed.
5. Times-interest-earned (or coverage) ratio	$\frac{\text{Operating income}}{\text{Interest expenses}}$	Measures the ability to pay annual interest charges. Lenders usually insist on a minimum ratio of 2.0, but ratios above 3.0 signal better creditworthiness.
Activity ratios		
1. Days of inventory	$\frac{\text{Inventory}}{\text{Cost of goods sold} \div 365}$	Measures inventory management efficiency. Fewer days of inventory are usually better.
2. Inventory turnover	$\frac{\text{Cost of goods sold}}{\text{Inventory}}$	Measures the number of inventory turns per year. Higher is better.
3. Average collection period	$\frac{\text{Accounts receivable}}{\text{Total sales} \div 365}$ or $\frac{\text{Accounts receivable}}{\text{Average daily sales}}$	Indicates the average length of time the firm must wait after making a sale to receive cash payment. A shorter collection time is better.
Other important financial measures		
1. Dividend yield on common stock	$\frac{\text{Annual dividends per share}}{\text{Current market price per share}}$	A measure of the return to owners received in the form of dividends.
2. Price/earnings (P/E) ratio	$\frac{\text{Current market price per share}}{\text{Earnings per share}}$	P/E ratios above 20 indicate strong investor confidence in a firm's outlook and earnings growth; firms whose future earnings are at risk or likely to grow slowly typically have ratios below 12.
3. Dividend payout ratio	$\frac{\text{Annual dividends per share}}{\text{Earnings per share}}$	Indicates the percentage of after-tax profits paid out as dividends.
4. Internal cash flow	After-tax profits + Depreciation	A quick and rough estimate of the cash a company's business is generating after payment of operating expenses, interest, and taxes. Such amounts can be used for dividend payments or funding capital expenditures.