

RATIO	COMPUTATION	EXPLANATION
<b>Tests of profitability</b>		
Return on equity	$\frac{\textit{Profit}}{\textit{Average Shareholder's equity}}$	Measures how much the firm earned as a percentage of the investments made by shareholders. <b>High ratio</b> = Effective management of its shareholders investments, rising share price.
Return on assets	$\frac{\textit{Profit + Interest expense (net of tax)}}{\textit{Average total assets}}$	Measures how much the firm has earned from the use of its total assets.
Financial leverage ratio	$\frac{\textit{Average total assets}}{\textit{Average shareholders' equity}}$	Measures the relationship between the assets and the investments made by shareholders to finance them. <b>Low ratio</b> = A high proportion of assets is financed with shareholder's equity
Earnings per share	$\frac{\textit{Profit available to common shareholders}}{\textit{Average number of common shares}}$	Measures the return on investment based on the number of shares outstanding. Determines if the company is profitable or not.
Quality of earnings	$\frac{\textit{Cash flows from operating activities}}{\textit{Profit}}$	Measures how much cash each dollar of profit generates. <b>High ratio</b> = A greater ability to finance operating and other cash needs from operating cash inflows.
Profit margin	$\frac{\textit{Profit}}{\textit{Net sales}}$	Measures how much profit is earned as a percentage of revenues generated during the period. <b>High ratio</b> = Effective management of sales and expenses
Fixed asset turnover	$\frac{\textit{Net sales}}{\textit{Average net fixed assets}}$	Measures the sales generated by the use of fixed assets (property, plant and equipment, net of accumulated depreciation)
<b>Tests of liquidity</b>		
Cash ratio	$\frac{\textit{Cash + Cash equivalents}}{\textit{Current liabilities}}$	Measures the adequacy of available cash by comparing the cash reserve to the current liabilities. The ratio should not be too high because holding too much cash is uneconomical (it should be invested instead)
Current ratio	$\frac{\textit{Current assets}}{\textit{Current liabilities}}$	Shows a firm's ability to repay current liabilities with current assets. <b>High ratio</b> = High ability to repay current liabilities.
Quick ratio	$\frac{\textit{Quick assets}}{\textit{Current liabilities}}$	Compares quick assets (cash and near-cash assets: cash, short-term investments, trade receivables) to current liabilities to give a more stringent test of short-term liquidity.
Receivables turnover	$\frac{\textit{Net credit sales}}{\textit{Average net trade receivables}}$ Average collection period: $\frac{365}{\textit{Receivables turnover}}$	Reflects how many times average trade receivables were recorded and collected during the period. <b>High ratio</b> = Fast collection of receivables

Payables turnover	$\frac{\text{Net credit purchases}}{\text{Average net trade payables}}$ <p>Average age of payables: <math>\frac{365}{\text{Payables turnover}}</math></p>	Measures how quickly management is paying its trade creditors. <b>High ratio</b> = The company is paying its suppliers in a timely manner.
Inventory turnover	$\frac{\text{Cost of sales}}{\text{Average net inventory}}$ <p>Average days in inventory: <math>\frac{365}{\text{Inventory turnover}}</math></p>	Reflects how many times the average inventory was produced and sold during the period. High ratio = Inventory moves quickly through the production process to the customer

### Tests of solvency

Times interest earned	$\frac{\text{Profit (before interest and taxes)}}{\text{Interest expense}}$	Shows the amount of profit before interest and tax that is generated relative to interest expense. Its measures the ability for a firm to meet its required interest payments.
Cash coverage	$\frac{\text{Cash flows from operating activities}}{\text{Interest paid}}$	Compares the cash generated with the cash obligations of the period. <b>High ratio</b> = The company generates more cash than it pays interest
Debt-to-equity	$\frac{\text{Total liabilities}}{\text{Shareholder's equity}}$	Expresses the company's debt as a percentage of its shareholders' equity. <b>High ratio</b> = The company relies heavily on funds provided by creditors

### Market tests

Price/earnings	$\frac{\text{Current market price per share}}{\text{Earnings per share}}$	Measures the relationship between the current market price per share and its earnings per share. High ratio = The market expects earnings to grow rapidly.
Dividend yield	$\frac{\text{Dividends per share}}{\text{Market price per share}}$	Measures how much investors earn based on the dividends they receive.

### Other

Total asset Turnover Ratio	$\frac{\text{Sales Revenue}}{\text{Average Total Assests}}$	This ratio measures the sales generated per dollar of assets.
Capital Acquisition Ration	$\frac{\text{Cash Flow from Operation Activities}}{\text{Cash Paid for Property, Plant and Eq.}}$	In general, this ratio reflects the portion of purchases of property, plant and equipment financed from operating activities. A <b>high</b> ratio indicates less need for outside financing for current and future expansions