

Key Financial Ratios

Financial ratios are designed to measure aspects of financial performance. These ratios can be meaningful used alone, but are generally more useful when compared to other companies in the same or similar industries. These comparisons will identify variations from the norm which may then warrant management attention. See RESOURCES, below, for more ratios and sources of industry data.

In addition, as with other measures, how these ratios change over time can be important to identifying trends, either problem areas or areas that have shown improvement. It is common for banks and other lenders to include some of these ratios in loan documents, which usually allows the bank to take action if the ratios fall below specified thresholds.

Below are some of the more commonly used ratios:

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

Current assets are those normally expected to flow into cash in the course of a merchandising cycle or in one year. These include cash, notes receivable due within one year, accounts receivable and inventory.

Current liabilities are obligations due within one year, e.g. accounts payable to suppliers, accrued liabilities, short term bank loans, and taxes. This ratio is an indication of a firm's ability to meet its current obligations.

Generally, the higher the current ratio, the greater the "cushion" between current obligations and a firm's ability to pay them. The stronger ratio reflects a numerical superiority of current assets over current liabilities. However, the composition and quality of current assets is a critical factor in the analysis of an individual firm's liquidity. A 2-1 ratio, assets to liabilities, is typically considered a healthy short-term financial condition.

$$\text{Quick Ratio ("Acid Test")} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

The quick ratio is more conservative than the current ratio, a more well-known liquidity measure, because it excludes inventory from current assets.

Inventory is excluded because some companies have difficulty turning their inventory into cash. In the event that short-term obligations need to be paid off immediately, there are situations in which the current ratio would overestimate a company's short-term financial strength.

Debt to Worth (D/W) =

$$\frac{\text{Total Liabilities}}{\text{Net Worth}}$$

This ratio expresses the relationship between capital contributed by creditors and that contributed by owners. It expresses the degree of protection provided by the owners for the creditors. The higher the ratio, the greater the risk being assumed by creditors. A lower ratio generally indicates greater long-term financial safety.

A firm with a low debt/worth ratio usually has greater flexibility to borrow in the future. A more highly leveraged company has a more limited capacity for more debt.

Gross Profit Percentage = $\frac{\text{Gross Profit}}{\text{Net Sales}}$

Gross profit represents sales less cost of goods sold. It is the amount available to cover selling, general and administrative expenses, plus profit. A low gross profit percentage could mean the company is paying too much for its merchandise or setting selling prices too low (or giving away too much through sales discounts or promotions). For a manufacturing company, a low gross profit % could also be an indication of inefficient production processes.

Net Worth as a Percent of Assets = $\frac{\text{Net Worth}}{\text{Total Assets}}$

This ratio expresses the relationship between capital contributed by the owner(s) plus profits retained in the business, i.e. not paid out in the form of bonuses, draws, dividends, partnership distributions, etc., and total assets. This is a key indicator of a company's internally generated financial strength. The higher the equity percentage, the lesser the liabilities as a percent of assets. A lower percentage equity indicates a greater dependency on debt to sustain operations. When the percentage equity is zero or less, the company is totally reliant on borrowing and unable to generate operating capital internally.

Return on Sales = $\frac{\text{Net Profit}}{\text{Net Sales}}$

This is a measure of how much of each sales dollar falls to the "bottom line" as profit. A 5% return on sales means that \$.05 of each sales dollar remains after all expenses were paid. This return is available to make distributions to the owners or re-invest in the business. Keep in mind that if your legal entity does not pay income taxes (LLC, S Corp, Proprietorship or Partnership), some of this net profit will likely be distributed so the owner(s) can pay these taxes.

Return on Investment (ROI) = $\frac{\text{Net Profit (pre-tax)}}{\text{Net Worth}}$

Net worth is the claim by the owner(s) to the assets of the business. Proprietorship and partnership net worth is each owner's original investment plus or minus earnings after withdrawals. In a corporation, the owners are the shareholders.

The corporate net worth is the sum of the contributions (initial stock purchases) plus earnings retained in the business after paying dividends. This ratio expresses the rate of return on owners' investment in the business. It can serve as an indicator of management performance. It should be used in conjunction with other ratios as a high return normally associated with effective management could indicate an undercapitalized company. A low return, usually an indicator of inefficient management performance, could reflect a highly capitalized, conservatively financed business.

$$\text{Return on Assets (ROA)} = \frac{\text{Net Profit (pre-tax)}}{\text{Total Assets}}$$

This is a measure of operating effectiveness, since it measures the profit generated as a percentage of the assets deployed in the business. A high percentage reflects effective utilization of assets to generate profit. This ratio differs from ROI (see above) because it eliminates the impact of debt on the percentage return.

$$\text{Debt Service Coverage} = \frac{\text{Annual Cash Flow before Principal and Interest}}{\text{Annual Debt Service (Principal and Interest)}}$$

Debt Service Coverage is a measure of how adequate the company's cash flow is in relation to its debt obligations. The higher the coverage ratio, the easier it is to handle the debt payments. Bankers commonly use this ratio when evaluating new loan applications.

$$\text{Accounts Receivable Days Outstanding} = \frac{\text{Average Monthly Accounts Receivable} \times 30}{\text{Annual Sales} / 12}$$

Example: $(\$2,000 \times 30) / (\$18,000 / 12) = 40$ Days

$$\text{Inventory Turns} = \frac{\text{Annual Cost of Sales}}{\text{Average Monthly Inventory}}$$

Example: $\$12,000 / \$1,500 = 8$ Turns

Months of Inventory = $12 / \text{Turns}$

Example: $12 / 8 = 1.5$ months of inventory

RESOURCES

For more ratios of interest, see: <http://www.netmba.com/finance/financial/ratios/>.

Financial ratios vary by industry and company size. Sources of data that are relevant to your particular business type can be found in the following databases:

- Annual RMA (Risk Management Association) Financial Statement Studies. Excellent source for comparative business data for a fee. These are available without a fee in many libraries.
- BizMiner offers business statistics and financial ratios. <http://www.bizstats.com>
- Your trade association. For example, with a membership you can see the American Supply Association's Operation Performance Report. Without a membership you can see trends in the industry.

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