



Excerpted from  
FastTrac® TechVenture™



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# Financial Ratios

Financial statements are projection and management tools and should be used by management to analyze the business. Ratios use information from these reports to reveal the financial status of the company. Ratios allow you to judge the company's relative performance compared to others in the industry and to its previous performance. Ratios also help you see relationships or correlations between financial items on different statements.

By measuring performance in percentages rather than raw numbers, ratios allow you to evaluate the company's performance over a period of time, to compare the company to other companies of different sizes but in the same or similar business, and to plan for the future. Calculating financial ratios should become part of your regular financial reporting process. The ratios can then be assessed at the same time as the other financial reports.



## Profitability Ratios

Profitability ratios help you evaluate the profitability of your business. By comparing certain numbers, these ratios can help identify elevated expenses, inefficient operations, and profitable margins. Although dozens of ratios exist, an understanding of a just a few simple profitability ratios will get you started.

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### Gross Margin

How it is calculated	Gross income / Net sales
What it measures	The profit a company enjoys on the goods it sells after direct costs are subtracted.
What it tells	This rough measurement of overall profits—gross margin—tells companies how well they are controlling direct costs. If costs are increasing faster than sales, then the direct costs are out of control. Owners of the business would want to do some research to determine why the costs are increasing.

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### Operating Margin

How it is calculated	Operating income / Net sales
What it measures	A company's operating profitability and efficiency.
What it tells	Operating margins show how well a company is managing its overhead costs. If the company's gross margins are rising while its operating margins are falling, management knows immediately that the company is having difficulty controlling indirect costs.

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### Net Margin

How it is calculated	Net income / Net sales
What it measures	Profitability.
What it tells	The net margin shows how many cents on each dollar of sales is profit. A falling net margin may signal problems in controlling costs or prices.

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### Return on Assets (ROA)

How it is calculated	Net income / Total assets
What it measures	Profits against assets.
What it tells	ROA can be used to compare the profitability of companies of different sizes. Assets remain fairly stable, so an increasing ROA indicates greater profitability, while a decreasing ROA indicates less profitability.

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### Return on Equity (ROE)

How it is calculated	Net income / Total equity
What it measures	Income against stockholders' equity.
What it tells	This ratio tells whether the company is a good investment. As ROE increases, the company becomes more attractive to potential investors. Generally, improving net income will also improve shareholders' equity as the profit will become retained earnings.

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### Liquidity Ratios

Liquidity ratios measure the amount of cash or investments that can be converted to cash to pay expenses and short-term debts. Liquidity ratios determine your ability to meet current liabilities. The two commonly used liquidity ratios are the current ratio and the quick ratio.

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#### Current Ratio

How it is calculated	Total current assets / Total current liabilities
What it measures	Whether the company has enough liquidity to pay its short-term obligations.
What it tells	This ratio tells whether enough cash is available to pay the bills. Theoretically, a current ratio of 2.0 is preferred for most companies. It is important to watch this ratio closely. If it begins to go down, then a company's cash position may erode quickly. The quickest way to increase cash is to improve sales.

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**Quick Ratio**

How it is calculated	$(\text{Current assets} - \text{Inventory}) / \text{Current liabilities}$
What it measures	Whether the company's assets minus inventory will provide enough liquidity to cover its short-term obligations.
What it tells	This ratio is also referred to as the acid test. It shows whether the company has enough cash to meet its short-term obligations. A 1.0 ratio is usually preferred. If this number is going down, then sales are not strong enough to meet daily cash obligations. Quick cash management intervention is required.

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**Adjusted Quick Ratio**

How it is calculated	$(\text{Current assets} - \text{Inventory}) / (\text{Current liabilities} - \text{Deferred Revenue})$
What it measures	Whether the company's assets minus inventory will provide enough liquidity to cover its short-term obligations.
What it tells	This ratio is more often used by technology ventures as a more accurate test than the more traditional Quick Ratio because of their frequent substantial deferred revenue. It shows whether the company has enough cash to meet its short-term obligations. A 1.0 ratio is usually preferred. If this number is going down, then sales are not strong enough to meet daily cash obligations. Quick cash management intervention is required.

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**Risk Ratios**

Risk ratios measure what portion of the company belongs to people outside the company including how much money the owners could lose to creditors.

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**Debt Ratio**

How it is calculated	$\text{Total liabilities} / \text{Total assets}$
What it measures	The proportion of assets that are financed by creditors' funds (debt).
What it tells	A debt ratio of more than 1 means negative net worth. In other words, if a company could sell all of the assets for full value, it would still not have enough money to meet all its obligations.

### Debt to Equity Ratio

How it is calculated	Total liabilities / Total equity
What it measures	How much the company relies on debt versus equity financing.
What it tells	The more a company's debt exceeds its net worth, the less likely it is to obtain financing. As this number increases, the company's ability to obtain financing decreases. Additionally, the owner's position is weakened and those that own the debt (banks, large suppliers) can establish control of the company.

### Efficiency Ratios

Efficiency ratios tell how well business is being conducted. These ratios measure how quickly inventory moves, how well the company collects its accounts receivable, and what kind of sales a company's assets generate.

### Inventory Turnover Ratio

How it is calculated	Cost of goods sold / Inventory
What it measures	Measures how often inventory turns over.
What it tells	This ratio shows how efficiently inventory is being managed. High turnover is generally good. However, high turnover may also indicate that a company does not have enough merchandise and is losing sales.

### Days Sales Outstanding (DSO)

How it is calculated	Accounts receivable / (Net sales / 365)
What it measures	Average number of days it takes customers to pay their bills.
What it tells	This ratio shows how effective a company is at collecting money and how much float it must finance. DSO also shows how effective the company's credit policies are. Remember, the tighter the credit policy, the lower the DSO ratio. That policy, however, may also reduce sales..

### Investment Turnover Ratio

How it is calculated	Net sales / Total assets
What it measures	The amount of sales generated by the assets.
What it tells	The turnover ratio shows how efficiently a company uses its assets. The measurement shows how quickly and how often an asset (piece of machinery or investment) pays for itself. If an older piece of equipment works more slowly but pays for itself three times in a year, while a newer model takes two years to pay for itself, the owner must reflect on whether the payoff is worth the greater investment.

## Ratio Analysis

When using financial ratios to analyze a company, you should answer the following questions:

- **How consistent and realistic are the numbers used to calculate the ratios?** If the numbers have been tallied in an inconsistent manner, are not realistic, or are not up-to-date, the ratios will be of no value.
- **How closely do the individual ratios compare with company policies?** Company policies should be established to help the business meet financial goals. For example, most entrepreneurs set a standard for the number of days they will allow on credit terms. If they allow customers a Net/30 payment schedule, then their Days Sales Outstanding should be near 30 days. This number would confirm that the company is following the policy to collect on receivables within 30 days.
- **How closely do the individual ratios compare with other companies within the industry?** A very valuable use of a company's ratios is to compare them to other businesses in the same industry. By doing this, much can be learned about ways to improve overall profitability. For example, you may find that your company is in a very small minority of companies with a slow inventory turnover; you are keeping inventory longer than most other companies within the industry. Since this practice is a poor use of cash, you would need to evaluate the reasons and make improvements in your inventory policy.

**Tip** Only make decisions based on ratios calculated with consistent and realistic numbers.