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# Calculate & Analyze Your Financial Ratios

## Turning Your Financial Statements into Powerful Tools

> *"Financial ratios lead to a deep understanding of your business and allow for industry comparisons. Just remember that industry standards are a reference, not a recipe. There may be strong competitive reasons for you doing something differently."*
>
> **— Dr. Patricia G. Greene, 18th Director of the Women's Bureau, U.S. Department of Labor, former Entrepreneurship Professor**

As a small business owner, you want to be armed with all possible information and tools to guide your business growth. Financial ratios should be one of them. Financial ratios show the state of your business's financial health either at a certain point in time or during a specific period. These ratios are one way to measure your business's productivity and performance and drive your decisions and strategies around growth. For example, a common financial ratio called current ratio (which we'll review in detail shortly) is helpful in determining if your business has the necessary cash flow to grow. Another financial ratio, inventory turnover (which we'll also review shortly), indicates how quickly or slowly your inventory is moving and if you need to make any tweaks to better align your product with market demand.

Calculating and analyzing financial ratios not only helps you track how your company's current performance compares to its performance in the past, but you can determine how your business stacks up against the competition by comparing your financial ratios with industry standards. (Note that most industry standards are the averages from big businesses.) While there are several places to find industry-standard business ratios, a good place to start is with your local business librarian, Women's Business Center or **Small Business Development Center**, or you can search for free industry standards online.

Review some examples of financial ratios, decide which ones are most relevant for you, and practice calculating those for your business.

## Common Financial Ratios

Financial ratios are grouped into four broad categories—liquidity, safety (or leverage), profitability and efficiency (productivity).

Within these categories, there are several financial ratios, and each help you measure different aspects of your business's productivity—using assets, generating profits, moving inventory and so on.

Below, we'll review some of the more common financial ratios that businesses typically use to gauge their performance.

You can calculate most financial ratios by pulling numbers from your business's financial statements such as your Balance Sheet and Income Statement.

| Financial Ratio | How Do I Use This Ratio? | Which Financial Statement(s) Do I Use to Calculate This Ratio? | Formula to Calculate Ratio |
|---|---|---|---|
| **Liquidity Ratios:** Use these ratios to measure your company's ability to cover its financial obligations.[1] | | | |
| Current Ratio | Measure your company's ability to pay both short- and long-term debts. | Balance Sheet | Current Assets / Current Liabilities |
| Quick Ratio (acid test) | Measure your company's ability to generate cash to pay short-term financial debts—how much money you have in liquid assets (excluding inventory) compared to liabilities. | Balance Sheet | (Current Assets – Inventory) / Current Liabilities |
| **Safety Ratios:** Use these ratios to see how heavily your company relies on financing from debt as opposed to equity (ownership). | | | |
| Debt Ratio (debt to asset) | Measure the percent of your company's assets that come from debt. | Balance Sheet | Total Liabilities / Total Assets |
| Debt-to-Equity Ratio | See the total debt and financial liabilities against shareholders' equity. | Balance Sheet | Total Liabilities / Share-holders' Equity |

| | | | |
|---|---|---|---|
| **Profitability Ratios:** Use these ratios to assess your company's ability to make a profit relative to your revenue, costs, equity and assets over a specific period of time.[2] | | | |
| Gross Profit Margin | Measure how much money you have from sales after subtracting the cost of goods sold (COGS)—money your company earns on the dollar.[3] | Income Statement | (Revenue – Cost of Goods Sold) / Revenue |
| Profit Margin | See how much your company earned after deducting all expenses. | Income Statement | (Revenue – Expenses) / Revenue |
| Return on Equity | Measure how efficiently your company is using its equity to generate profit.[4] | Income Statement and Balance Sheet | Net Income / Average Shareholders' Equity |
| Return on Assets | Measure how efficiently your company is using its assets to generate profit.[5] | Income Statement and Balance Sheet | Net Income / Average Total Assets |
| **Efficiency Ratios:** Use these ratios to measure how efficiently your company's operations run.[8] | | | |
| Inventory Turnover | See how long it takes for inventory to be sold and replaced during the year. | Income Statement and Balance Sheet | Cost of Goods Sold / Inventory |
| Asset Turnover | Measure your company's ability to generate sales through assets. | Income Statement and Balance Sheet | Net Income / Average Total Assets |

## Calculating Common Financial Ratios

As you can tell from the formulas you just reviewed, calculating financial ratios isn't necessarily complicated. It simply requires working with the numbers in your company's financial statements.

Let's calculate the financial ratios listed in the table below.

To do the calculations, we'll use the numbers in Year 2 of the financial statements provided for this tool.

| Financial Ratio | Sample Formula/ Calculation | Financial Ratio Value | **Notes**<br>The notes below are guidelines only. When working with financial ratios, please check industry averages for your specific industry to get a better understanding of what your financial ratios tell about your company's performance.<br><br>Tip: If you don't have access to a paid database, do a search for "free business ratios" to find ratios for your industry. |
|---|---|---|---|
| **Liquidity** | | | |
| Current Ratio (current = within one year) | Current Assets / Current Liabilities<br>217,248 / 5,000 | 43.44 | A current ratio of 1 indicates that a company has just enough money to pay its short-term debts.<br>A current ratio of 2 typically indicates stability.<br>A high current ratio could signal that a company is sitting on too much cash.<br>Below are current ratio benchmarks for two industries:<br>• Grocery store: 4.5–4.8[7]<br>• Oil and gas: 2.4–2.6[8] |
| Quick Ratio (acid test) | (Current Assets – Inventory) / Current Liabilities<br>217,248 – 12,000 / 5,000 | 41.04 | Quick ratios between 0.5 and 1 are typically considered satisfactory if the company can collect receivables in a timely manner.[9]<br>Below are current ratio benchmarks for two industries:<br>• Grocery store: 4.5–4.8[10]<br>• Oil and gas: 2.4–2.6[11] |
| **Safety** | | | |
| Debt Ratio (debt to asset) | Total Liabilities / Total Assets<br>5,000 / 217,248 | 0.023 | The higher the debt ratio, the greater the financial risk—that is, the company has accumulated too much debt. For this example, a debt ratio of 0.023 indicates that about 2.3 percent of the company's assets are supported by some form of debt.<br>Compare your debt ratio to your company's history and industry standards. There is no one size fits all. |
| Debt-to-Equity Ratio | Total Liabilities / Shareholders' Equity<br>5,000 / 212,248 | 0.023 | A debt-to-equity ratio of 1 indicates that a company uses the same amount of debt as equity.<br>The greater this ratio, the more debt a company is using instead of equity.<br>Below are debt-to-equity ratio benchmarks for two industries:<br>• Hotel: 6.5–7.1[12]<br>• Commercial fishing: 2.2–2.9[13] |

| Profitability | | | |
|---|---|---|---|
| Gross Profit Margin | (Revenue – Cost of Goods Sold) / Revenue<br>460,000 – 8,000 / 460,000 | 98.26% | Are you looking to grow your business and secure funding? The higher this percentage, the more profit you're making, and the more potentially attractive you are to funders.<br>Also, companies with high gross profit margin ratios have a competitive advantage in the market.<br>Below are the gross profit margin ratio benchmarks for two industries:<br>• Vegetable farming: 60–65 percent[14]<br>• Mining: 25–35 percent[15] |
| Profit Margin | (Revenue – Expenses) / Revenue<br>460,000 – 283,030 / 460,000 | 38.47% | If you're looking to raise capital, know that potential investors and lenders will be looking at this ratio very closely to assess your company.<br>S&P 500 reports that the blended net profit margin ratio for several industries (advertising, computer services, farming, etc.) for Q1 2018 was 11.6 percent.[16] |
| Return on Equity | Net Income / Average Shareholders' Equity<br>126,728 / 212,248 | 59.7% | The higher the return on equity ratio, the more money a company is making for its shareholders.<br>Below are return on equity ratio benchmarks for two industries:<br>• Air taxi: 30–34 percent[17]<br>• Banking: 7.7–8.3 percent[18] |
| Return on Assets | Net Income / Average Total Assets<br>126,728 / 217,248 | 58.33% | The higher the return on assets ratio, the better. Why? Because higher ratios typically indicate that a company is effectively using its assets to generate money.<br>There are no upper limits for this ratio, and unusually high numbers do not indicate some underlying issue.<br>Below are return on assets ratio benchmarks for two industries:<br>• Medical offices: 55–60 percent[19]<br>• Logging: 10–15 percent[20] |

| Efficiency | | | |
|---|---|---|---|
| Inventory Turnover | Cost of Goods Sold / Inventory<br>8,000 / 12,000 | 0.66 | A higher inventory turnover ratio indicates that a company is moving its inventory efficiently and is generating good sales.<br>An unusually high ratio could signal that inventory is lean and the company is struggling to keep up with market demand.<br>Below are inventory turnover ratio benchmarks for two industries:<br>• Dairy: 6.6–7.1[21]<br>• Used-car dealers: 4.2–4.4[22] |
| Asset Turnover | Net Sales / Total Assets<br>460,000 / 217,248 | 38.47% | Below are the asset turnover ratio benchmarks for the farm industry:<br>Typical ratio: ~30 percent[23]<br>For low-profit farms: 20–30 percent[24]<br>For high-profit farms: 40–50 percent[25] |

## Calculating and Analyzing Your Financial Ratios

Now that you've looked at an example, use the table below to calculate the financial ratios for your company. If applicable, compare the results over three years to identify trends.

Whether a given financial ratio is healthy or not depends on your company and the industry in which it operates.

**Tip:** To find the norms for your specific industry, contact your local library or bank for copies of the Risk Management Association (RMA) annual statement. You may also find this data in industry publications and trade magazines. For instance, the annual reports of publicly traded companies generally include their financial ratios. You can typically find these on the company's website in the Investor Relations section. These sources provide points of comparison for your consideration and planning.

| Financial Ratio | Year One | Year Two | Year Three | Industry Norms | Trend for My Business + Action Items |
|---|---|---|---|---|---|
| **Liquidity** | | | | | |
| Current Ratio<br>Current Assets / Current Liabilities | | | | | |
| Quick Ratio (acid test)<br>(Current Assets −Inventory)<br>/ Current Liabilities | | | | | |
| **Safety** | | | | | |
| Debt Ratio (debt to asset)<br>Total Liabilities / Total Assets | | | | | |
| Debt-to-Equity Ratio<br>Total Liabilities / Shareholders' Equity | | | | | |
| **Profitability** | | | | | |
| Gross Profit Margin<br>(Revenue – Cost of Goods Sold) / Revenue | | | | | |
| Profit Margin<br>(Revenue – Expenses) / Revenue | | | | | |
| Return on Equity<br>Net Income / Average Shareholders' Equity | | | | | |
| Return on Assets<br>Net Income / Average Total Assets | | | | | |
| **Efficiency** | | | | | |
| Inventory Turnover<br>Cost of Goods Sold / Inventory | | | | | |
| Asset Turnover<br>Net Sales / Total Assets | | | | | |

## Resources:

Check out these resources for a comprehensive look at financial ratios:

- **https://www.crfonline.org/orc/cro/cro-16.html**
- **https://edwardlowe.org/how-to-analyze-your-business-using-financial-ratios-2/**
- **https://aksbdc.org/2016/11/the-top-10-financial-ratios-for-business-owners/**

Check out these online calculators for financial ratios:

- **https://www.pfcu.com/financial-education/financial-calculators/business-calculators/financial-ratios-calculator**
- **http://www.bizstats.com/calculators/financial-ratios/**
- **https://www.calcxml.com/calculators/financial-ratio-analysis?skn=#results**

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[1] *How to Analyze Your Business Using Financial Ratios*, Edward Lowe Foundation, https://edwardlowe.org/how-to-analyze-your-business-using-financial-ratios-2/ (Accessed May 2, 2019).
[2] Will Kenton, *Profitability Ratios Definition*, (April 24,2019), https://www.investopedia.com/terms/p/profitabilityratios.asp, (May 2, 2019).
[3] Rachel Blakely, *5 Small Business Financial Ratios for a Healthy, Growing Business*, (Aug 25, 2017), http://www.advertisecolumbus.com/blog/5-small-business-financial-ratios-for-a-healthy-growing-business, (Accessed May 2, 2019).
[4] *Financial Ratios?*, Corporate Finance Institute, https://corporatefinanceinstitute.com/resources/knowledge/finance/financial-ratios/, (Accessed May 2, 2019).
[5] Ibid.
[6] *How to Analyze Your Business Using Financial Ratios*, Edward Lowe Foundation, https://edwardlowe.org/how-to-analyze-your-business-using-financial-ratios-2/ (Accessed May 2, 2019).
[7] *The Top 10 Financial Ratios for Business Owners*, Alaska Small Business Development Center, (Nov 21, 2016), https://aksbdc.org/2016/11/the-top-10-financial-ratios-for-business-owners/, (Accessed May 2, 2019).
[8] Ibid.
[9] *How to Analyze Your Business Using Financial Ratios*, Edward Lowe Foundation, https://edwardlowe.org/how-to-analyze-your-business-using-financial-ratios-2/ (Accessed May 2, 2019).
[10] *The Top 10 Financial Ratios for Business Owners*, Alaska Small Business Development Center, (Nov 21, 2016), https://aksbdc.org/2016/11/the-top-10-financial-ratios-for-business-owners/, (Accessed May 2, 2019).
[11] Ibid.
[12] Ibid.
[13] Ibid.
[14] Ibid.
[15] Ibid.
[16] Meredith Wood, *Profit Margin: Formula and What Makes a Good Profit Margin*, Fundera, (Feb 28, 2019), https://www.fundera.com/blog/profit-margins,
(Accessed May 2, 2019).
[17] *The Top 10 Financial Ratios for Business Owners*, Alaska Small Business Development Center, (Nov 21, 2016), https://aksbdc.org/2016/11/the-top-10-financial-ratios-for-business-owners/, (Accessed May 2, 2019).
[18] Ibid.
[19] Ibid.
[20] Ibid.
[21] Ibid.
[22] Ibid.
[23] Don Hofstrand, *Understanding Cash Flow Analysis*, AG MRC, (Nov 2009), https://www.agmrc.org/business-development/operating-a-business/budgeting/articles, (Accessed May 2, 2019).
[24] Ibid.
[25] Ibid.
[26] *Financial Projections Template*, SCORE, (Feb 29, 2019), https://www.score.org/resource/financial-projections-template, (Accessed May 2, 2019).