

## *Setting Up Your Own Business:* **Monitoring the Health and Growth of Your Business**

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If you are an entrepreneur and business proprietor, it's likely that you are, or you soon will be, compiling financial statements for your business. Doing so is part of being the owner and manager of a business unit. It's important to regularly compile financial statements that are fully accurate, even if you may not enjoy the investment of time, effort, and number crunching.

Financial statements are important as they provide management information you can't get from any other source — information you need as you monitor the health and growth of your business. The three basic financial statements are: the balance sheet, the income statement, and the cash flow statement. Most of this discussion is focused on using data drawn from the balance sheet and income statement as they are the principal sources of data used in calculating ratios and business health and growth indicators.

This NebFact provides information on the use of easily calculated financial ratios and performance indicators derived from financial statements for your business. If you find unfamiliar terms in this document, ask your local extension office for a copy of NF279, *Setting Up Your Own Business: Glossary of Financial Management Terms*. It provides definitions for frequently used business and finance terminology.

If you want to know more about financial statements, ratios, and performance indicators, libraries and bookstores usually have a selection of books on business management. They will provide more complete information than can be included here. Keep in mind that the content of business management books varies widely; they are written for many purposes and for readers with many interests. Before taking a book home, examine several and select the one that best addresses your interests and information needs.

### Getting Ready

The validity of everything you do with ratios and performance indicators depends on the nature and quality of your financial statements. Start by closely examining your financial statements. Are they complete? Are they as accurate as possible? If you have a series of financial statements — possibly three or four or more prepared over a period of years — were they prepared at regular intervals and at the same time or times during the year?

If not, or if some entries are of questionable accuracy, can you generate the data needed for corrections and adjust entries to the appropriate dates? Unless you can give an unqualified “yes” to that question, leave your previous financial statements unchanged and use whatever data they provide. At the same time, take action as needed to improve your records and record keeping. Then, be sure that future financial statements have a high level of accuracy and completeness.

If it's feasible to make revisions, do so before calculating ratios and other indicators for your business. When making revisions, don't overlook data already in your business records, bank statements, and income tax returns from previous years — these data often are your best information sources. It usually is unrealistic to expect that every defect can be eliminated. However, a reasonable investment of time and effort often makes financial statements more reliable and useful.

When you're ready, move ahead to examine your business performance. Most of your analysis will be based on financial ratios or on data taken directly from the financial statements. While there are recommended values for some ratios and indicators, it may be most useful to compare them with averages or typical values for similar businesses. Comparing the same ratios and indicators of similar successful businesses will help you evaluate your business more effectively.

Most people find it useful to make a chart of their ratio and financial indicator values. Once you have begun this chart, you can add the current values to your chart each time you prepare financial statements. At a glance, you'll be able to see growth or decline in the health of your business. When the chart is updated regularly with accurate data, it will give an early warning of any problems that emerge.

### Using Ratios and Financial Indicators

Start with your most recent balance sheets and income statements. If possible, use the balance sheet prepared on the last business day of your most recent accounting period. Use the income statement reporting business activity for the accounting period ending on the balance sheet date.

Ratios and financial indicators based on one year's operations often have limited meaning. However, if your business has a short operating history or if you have not compiled financial statements previously, you may have data for only one year. If so, monitor trends as they become evident in future financial statements.

If your business has been operating for several years and this is your first time to chart ratios and other financial indicators, you'll need a series of balance sheet and income statements prepared at regular intervals. For year-to-year comparisons, it's best if financial statements are prepared at the same time of year; preferably on the same day of the year. Look for trends over the period covered by the series. Improving trends indicate your business is doing well. Trends indicating deterioration are a clear warning of the need for change.

### Profitability Indicators

"Am I making a profit?" is a daily question, one of the most important questions asked by every proprietor. Here are three ratios that serve as measures of profitability:

**Profit Margin:** This profitability measure reports net income after taxes as a percentage of net sales. It is calculated as the quotient of net income after taxes divided by net sales times 100. (Net income after taxes is gross profits minus operating expenses and income taxes. Net sales is gross sales minus the total of returns, allowances and discounts.) When the business operates at a loss, the profit margin is a negative percentage. Profit margins vary widely depending on the type of business and the level of management. This indicator is primarily useful for comparisons to industry averages and for analysis of trends. As a proprietor, you want this ratio to be positive with an upward trend.

**Return On Assets:** This profitability ratio usually is abbreviated as "ROA." It indicates how efficiently the business is using its total resources (total assets) to produce income. It is calculated as the quotient of net income after taxes divided by average total assets (one half the sum of total assets at the beginning and at the end of the accounting period). Except in rare instances, the value of this ratio is less than one. When multiplied by 100, ROA is expressed as a percentage. For a healthy business, you want ROA to equal or to exceed the rate of return for alternative investments with about the same level

of risk. ROA as a percentage should be greater than the rate of interest on borrowed funds. For business growth, ROA needs to be comparable to or greater than the industry average for similar businesses.

When you evaluate a proposed additional investment in your business (a capital purchase), compare the projected ROA for the business after the capital purchase with the existing ROA (the before-purchase ROA). Generally, you will want the projected ROA to be as large or larger than the existing ROA. If the projected ROA is less than the existing ROA, it is advisable to carefully re-examine the proposed capital purchase.

**Return On Equity:** This profitability ratio measures the rate of return on the owner's investments in the firm and often is abbreviated as "ROE." It is calculated as the quotient of net income after taxes divided by average owner equity (one half the sum of owner equity in the beginning and ending balance sheets). The quotient usually is multiplied by 100 and expressed as a positive or negative percentage. If the percentage is negative, the business is operating at a loss—a loss that may be acceptable in the short run. Over the long run, losses must be offset by outside funds if the business is to continue operations. If ROE is positive, but is less than the rate of return on other investments with similar risk, the proprietor's return is less than could be earned by investing elsewhere. A positive percentage return on equity greater than the average for similar businesses is highly desirable and indicates a healthy business.

### Debt Ratios

Questions of concern to proprietors and lenders include: (1) "Is my level of debt appropriate?" (2) "What amount of debt could I repay if I needed to do so quickly?" (3) "Could I repay all my debt if I were to go out of business?" Ratios in this group measure the ability of a business to repay its debt under several types of circumstances:

**Current Ratio:** This liquidity ratio measures the ability of the business to pay its current obligations in full without running out of funds. It is calculated as the quotient of total current assets divided by total current liabilities. For approval of a loan application, traditional lending practices have called for current ratio values of 2.0 or greater (two or more dollars of current assets for each dollar of current liabilities). A business with a current ratio of less than 1.0 is considered to be illiquid. A business with a current ratio of greater than 1.0 also can be illiquid in the short term if: current liabilities must be paid before current assets can be sold; receivables are deemed not fully collectable; inventory is not fully saleable; prepaid expenses make up a high proportion of current assets; or the firm has cyclical business activity and the ratio is calculated from a balance sheet reporting conditions at a high or low of the cycle. If your business is small and has little or no debt, this ratio can be very high (20.0 or above). If your present current ratio is high to very high, it's likely to decline as the business grows and credit use increases. Generally, it's desirable to have a current ratio that equals or is higher than the average for comparable businesses.

**Quick (Acid-Test) Ratio:** This liquidity ratio measures the ability of the business to cover its current liabilities without selling inventory or recovering the value of prepaid expenses. It is calculated as the quotient of the total of cash, marketable securities, and net receivables divided by total current liabilities. The quick ratio assumes that net receivables will be collected. A business with a quick ratio less than 1.0 and a current ratio greater than 1.0 often is referred to as being “not liquid in the short term,” and may be considered not liquid for purposes of securing credit even if the current ratio is greater than 2.0. Look to your lender and to comparisons with the average for similar businesses for guidance.

**NOTE:** When liquidity ratios are used as indicators of the health of your business, keep in mind that many businesses with a high asset turnover rate (defined below) may have a current ratio less than 1.0 and be financially sound. A sound business with seasonal production or seasonal markets or stale inventories may be illiquid at times during the year. It may be illiquid even when its current ratio appears to be 2.0 or more. For useful interpretations of liquidity ratios from your business, usually it’s best to rely on lender recommendations and comparisons with similar businesses.

**Debt-to-Asset Ratio (Debt Ratio):** This solvency ratio indicates the ability of the business to pay off all its debts in the event it is liquidated. For the business, this ratio is the quotient of total business liabilities divided by net business assets (business assets less liquidation costs). Liquidation costs, including taxes, usually are between 10 and 50 percent of the value of assets. From the personal financial management standpoint, this ratio is the quotient of total liabilities divided by net total assets of the proprietor (the proprietor’s total assets less liquidation costs) as most small businesses are sole proprietorships or partnerships where the proprietor(s) have unlimited responsibility for debts incurred by the business. (This also may be the situation if the business is incorporated and you signed a personal guarantee for corporate borrowing.)

**Debt-to-Equity Ratio:** This leverage ratio is calculated as the quotient of total debt divided by owners’ equity (net worth). It compares creditors’ stake in the business to the stake of the business’s investors, the person or persons with direct ownership of business equity. Unless the business is well-established or has very conservative management, this ratio may be greater than 1.0. Ratios less than 0.3 or greater than 2.0 often are viewed as causes for concern, but the most valid basis for judgments is comparison with ratios for successful businesses of the same type.

### Performance Indicators

“How efficiently is my business operating?” is a question of concern to every proprietor. In most cases, efficiency and profitability are linked, efficient businesses usually are more profitable. Ratios and other indicators of efficiency often are called “performance ratios” or “performance indicators.” Frequently used performance ratios and performance indicators are:

**Accounts Receivable Turnover Ratio:** This performance ratio gives an overall view of the firm’s accounts receivable

management. It is calculated as the quotient of net credit sales divided by average accounts receivable where net credit sales is the accounting period total of credit sales net of returns, discounts, and allowances, and average accounts receivable is the average of beginning accounts receivable and ending accounts receivable. This ratio varies widely depending on the nature of the business and the products it sells. Comparisons to industry averages and trends in this ratio provide its most useful applications. Keeping this ratio high is very desirable and maintaining a trend toward higher values often is a management goal.

**Accounts Receivable Age Distribution:** This performance indicator is the frequency distribution of the number and dollar total of accounts receivable in age categories such as: less than 30 days, 30 to 60 days, and over 60 days. (Other categories are used as appropriate to the type of business.) The age distribution of accounts receivable is compiled directly from accounts receivable listings. Doing so can be very time consuming. A “young” age distribution of accounts receivable is desirable for business liquidity reasons and because the percentage of accounts receivable actually collected generally declines as the age distribution of accounts receivable becomes “older.”

**Average Collection Period:** This performance indicator is the average time required for the firm to collect a credit sale. It is calculated as the quotient of 365 (days) divided by the Accounts Receivable Turnover Ratio. A short average collection period is desirable. Compare your average collection period to those of other businesses and take action to speed up collections if it increases.

**Inventory Turnover Ratio:** This performance ratio is calculated as the quotient of the cost of goods sold divided by average inventory during the accounting period. Cost of goods sold is taken from the income statement. Average inventory is one-half the sum of beginning and ending inventory. Higher turnover ratios are better as long as they can be attained without loss of profitability. This ratio also is most useful for comparisons and in trend analysis of your business operations.

**Asset Turnover Ratio:** This is an overall efficiency ratio (a performance ratio).

Given the asset base of the business, this ratio indicates how effectively a business is generating sales. The ratio is calculated as the quotient of net sales divided by total assets. While this ratio is primarily useful for comparisons and trend analysis, it is possible to make several generalizations about its overall significance:

- A higher asset turnover ratio generally indicates relatively short production periods characteristic of a business with good management flexibility and the capacity to rapidly respond to opportunities and problems.
- If a business must be liquidated, the timing of liquidation generally will have less effect on the level of recovery for a business with a high asset turnover ratio than will be the case for a business having a low asset turnover ratio.

- Additional capital investments and management changes are more likely to restore profitability rapidly in a business with a high asset turnover ratio.

### **Concluding Comments**

No one indicator tells the whole story. Based on experience, most proprietors and lenders use several indicators that give useful insights into the health and growth of firms like the subject business. Accurate indicators and good judgment based on knowledge and experience are the principal basis for successful monitoring.

### **Special Acknowledgment**

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