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Financial Ratios: What They Say About Your Business

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Although financial ratios cannot tell a complete story about a business, they can help direct you toward key issues facing your individual firm or one for which you work. Understanding your financial statements can be an important first step toward improving or continuing a successful business operation. In the first part of this fact sheet, we will present some important financial ratios, show how they are calculated, and discuss what they mean. Next we will demonstrate how these ratios can be used to tell a story about your business. Finally we will help to show you how to use your financial story in a proactive manner when approaching your banker.

Profitability Ratios: Profitability ratios are key to the firm's success. They provide information about cash flow potential, repayment capacity, and perhaps most importantly, they contribute to the overall wealth of the firm. Remember, it is not the goal of the firm to just maximize profits; rather, the firm should be concerned about maximizing the firm's overall ***wealth.*** Whether a firm remains viable depends on many factors, the most important of which is overall performance and wealth. Profits represent only one part of this equation, albeit an obviously important one.

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Sales}}$$

$$\text{Operating Profit Margin} = \frac{\text{Earnings Before Interest and Taxes}}{\text{Sales}}$$

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Sales}}$$

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Assets}}$$

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Common Equity}}$$

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Each one of these ratios is looking at the sales generated by the firm in a different manner. For example, suppose that the net profit margin is 9 percent. Basically for every one dollar of sales, 9 cents is being generated in net income. If the earnings before interest and taxes ratio is 25 percent then operations are generating 25 cents for every dollar. Each profitability ratio is interpreted in

this same manner. The rate of return ratios relate to how much profit is created by the total capital and/or the capital owners have invested in the firm. A lower volume sales' firm can still have very favorable profitability ratios if their costs are kept under control.

Liquidity Ratios: These ratios look at how quickly you can convert your assets into cash *without suffering a loss.* These particular ratios allow the business to determine if it can cover current liabilities (due in one year or less) with current assets without having to suffer a loss (in terms of discounting prices, early withdrawal penalties, etc.) as a result of converting assets. In other words, are the liquid assets really liquid? The quick ratio does not include inventories and is, thus, often used as a more conservative measure of the firm's liquidity.

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

$$\text{Quick Ratio} = \frac{\text{Current Assets Less Inventory}}{\text{Current Liabilities}}$$

With respect to these ratios, suppose that the current ratio is 2. This says that for every dollar of current liabilities, there are 2 dollars of current assets to cover these expenses. If the current ratio is .5, however, then there are not enough current assets to cover current liabilities if the firm should need to do so. This could present a problem for creditors could call in debt if the firm begins to miss some short-term due dates.

Debt Ratios: The ratios used here help the firm to measure their level of indebtedness and their ability to service these debts.

$$\text{Debt to Total Assets Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

$$\text{Debt to Equity} = \frac{\text{Total Debt}}{\text{Equity}}$$

$$\text{Times Interest Earned} = \frac{\text{Earnings Before Interest and Taxes}}{\text{Interest Expense}}$$

With respect to overall indebtedness, there are two ratios used. Some people feel more comfortable understanding how much debt their assets are funding while others prefer to look at the debt to equity ratio. Either ratio is acceptable as both are telling the same story in a little different manner. For example, a debt to asset ratio of 2 would mean that this firm has twice as much debt as assets. With a debt to equity ratio of 2, the firm would be financing twice as much assets with debt as with equity, thus relying more heavily on creditor-supplied funds. The times-interest-earned ratio measures the ability to pay contractual obligations that may include interest payments, principal payments, or lease payments. For example, a times-interest-earned ratio of 3 means that the firm earned $3.00 of operating income for every $1 of interest expense incurred. It is closely linked to cash flow and profitability.

Asset Activity Ratios: These ratios are often referred to as management ratios as they can provide indications of the owner's/ management's ability to efficiently run the firm. How long does it take to pay receivables? How long does it take for the firm to pay its suppliers? How often is the inventory or total assets turning over in a year? Are these numbers increasing or decreasing? These are factors usually directly controlled by management and can point to potential problems if not addressed early.

$$\text{Average Collection Period} = \frac{\text{Accounts Receivable}}{\text{Average Daily Credit Sales}}$$

$$\text{Inventory Turnover} = \frac{\text{Sales}}{\text{Inventory}}$$

$$\text{Total Asset Turnover} = \frac{\text{Sales}}{\text{Total Assets}}$$

For example, an asset turnover ratio of 0.5 would mean sales were 0.5 of assets or another way to say this would be that assets were capable of supporting half of their value in sales for the year. These ratios can be subtle but important indicators of efficiency in using longer-term assets and the firm's overall health.

The Story: Once you have calculated all of the ratios, it is now time to analyze your results. Let's suppose that the net profit margin is 9 percent, current ratio is 2, the debt to total assets is 2 and the total asset turnover is .5. So what, you say? A single set of numbers make telling a good story somewhat difficult. A starting point would be to compare your ratios to those of the industry in order to see how you are doing relative to similar firms. But this is only part of the picture. An important part of the story relies upon the firm's past history or trends. Ideally, you should have at least three years of good financial records with which to do a proper analysis—the more the better. This allows both you and your banker to ascertain where you've been and where you seem to be going in the future. It points to relevant questions with respect to your business' future—it tells a story. Now let's look at the ratios calculated above and see how we would use them in an analysis of this firm.

Profitability Ratios: Perhaps your net profit margin of 9 percent seems low relative to other firms in the industry but perhaps it has been rising over the past several years and is showing a very positive trend. This would be more favorable to a banker reviewing the statements (all else equal) than if your number was high relative to the industry but had been dropping over the past several years. In this case, your banker would want to know why your net return is on a downward slide, a question for which you should have a good response. Perhaps you need to initiate cost controls or work to increase sales levels, however, be careful of "band-aid" fixes. Don't start reducing assets to increase the ROA (return on assets) in the short run or you could end up reducing long-term profitability with fewer assets to support sales growth. In other words, it is important to dig down and find out why the ratios are as they are and treat the problem, not the symptom.

Liquidity Ratios: As mentioned above, we want to be sure that the liquid assets are truly liquid. You need to be careful when using crops in field numbers and livestock on feed if you have not hedged these assets in some form. Granted they represent current assets but unexpected weather conditions or price movements can change these circumstances very quickly. Thus, unless price and yield are locked in, a current ratio of 2 may not mean much to the banker. It may have to be considerably higher to assure creditors that you will be in a position to pay all current liabilities as they come due. It is also important that an accurate tracking of accruals is taking place. Again, know the cash flow—what is really available to pay those current debts. What are the trends; is liquidity going down—why? How do you compare to the industry?

Debt Ratios: Perhaps the best way to start this section is with the statement that debt is not always bad. While an increase in debt burden should be correlated with an increase in profits and growth, greater profitability can take some time to occur. With debt we are able to leverage the firm as debt is cheaper than increased equity—but again, the amount of leverage should be consistent with where the firm sees itself down the road. Good investment analysis on major purchases would also support some increased leverage, but debt has to be repaid, thus, what is appropriate for one firm may not be for another. In this case, having prepared some pro forma statements which show the changes corresponding with the increased demand for debt will be quite useful for both you and your banker. The statements will also help to show from where the increased debt need is arising.

Approaching Your Banker:

If you go into the bank for a loan and are well prepared with a sound understanding of your own finances, the experience doesn't have to be an unpleasant one. Perhaps you have prepared some pro forma statements based on your predictions for future financing needs. During the process, you find that your profitability is down relative to last year. But, when your banker asks you about this situation, you will be ready to explain why this has occurred and what you have planned for the future to improve upon this. What a banker often wants to see is that you are truly managing your business, that you have thought about issues, that you are in control and have a sound plan for future growth and profitability. Remember the banker also wants to see your firm maximize its wealth so that you will continue to have cash flow in the future to repay your current loan. The best way for this to happen is with a manager who understands his/her business from both an operational as well as financial perspective.

When you can tell a story about your own firm, you will be in a position to address issues before they become problems. You will discover ways to keep your business going forward. An important caveat here, however, is that ratios can't tell everything there is to know about a firm. Dow Corning showed profitable statements prior to its bankruptcy petition in 1995. Understanding financial statements, however, are essential to understanding your business' management and practice and ensuring future profitability and wealth. Thus go into that bank after doing your homework. Know your strengths and weaknesses and don't feel defensive; after all, it is your business and you, of all people, should know how to run it best.