

The Key Financial Ratios

What is Financial Stability?

There is no definite definition to the phrase, “financial stability”. It is really very difficult to meet a consensus on how to define it but everyone agrees on its importance. Probably the reason behind it is the fact that it isn't forthright, there's no single tool to measure financial stability.

In his speech during an international conference on financial system stability, Sir Andrew Large, the Deputy Governor of the Bank of England says, "It is clear that rapid growth in size, complexity, and diversity of global financial markets has added new dimensions and challenges to the process of maintaining financial stability. “ Besides, industry differs from one another in terms of financial structures. And there are external factors that could influence financial structures such as market, inflation, interest rates, tax rates, economic policies or geographic location. Companies also differ in terms of organizational framework, accounting system, product diversity, size and a lot more considerations. The rapid growth and expansion of the financial market for the past years has brought several disturbances and complexities. Example, the sharp price movements in U.S. Equity markets in 1987 ("black Monday") and 1997; bond market turbulence in the G-10 countries in 1994 and in the United States in 1996; currency crises in Mexico (1994-95), Asia (1997), and Russia (1998); the collapse of the hedge fund Long-Term Capital management in 1998;.... (Schinasi)

Financial Stability is also evolving, it cannot be seen at only one point in time but there is a need to look back on history to see how they have evolved with time. Comparisons are often made period to period to see the change and understand what makes the variance -- comparison

on company's performance, comparison against their competition or to the whole industry as may be required.

How to measure financial stability?

“There's no one tool that can measure financial stability, there's a handful of them that can aggregately measures the soundness of the business in terms of profitability performance, how well the business has maximize the use of their assets and how well they have managed risk”. These measures are what we called “financial ratios”.

A mere glance on a company's balance sheet won't tell us anything substantial whether or not the company has a robust financial structure. Same holds true with income statement and the other financial statements. They all become meaningful once we venture out in analyzing and interpreting the data otherwise, it is like gazing on a bunch of trivial numbers. If you compare the financial statements to a façade of a building, you won't be able to tell the building strength, even how attractive the façade could be, we need to look beyond it further for us to understand the quality of the materials, the mixture, the curing process, the quality of work, so on and so forth to fully gain understanding of what is buried behind the façade. Just like the financial statements, even how attractive the numbers might tell, even how large the figures could be but unless we embark to look further on what these numbers truly indicate, so that we can gain concrete and reasonable comprehension on the real financial condition of the company, we can't really never tell.

It is where financial ratio analysis comes in, in an attempt to give more meat to these numbers and provide a clearer picture on a company's performance and financial condition. Although financial ratio analysis is not definitive but it is a well-tested tool that can uncover facts

and trends to gauge a company's profitability and risk and can serve as an early warning device for anybody with interest on the business for potential troubles that could include bankruptcy.

What are the concerns addressed by Financial Ratios:

- Operating Profitability

Financial Ratios measures whether the company has efficiently generated profits through efficient distribution of manufacturing process or how effectively the company used its asset to generate returns or how much is the profit earned for every dollar that is invested in the company

- Asset Utilization

Asset turnover ratios provide the measures on the efficiency of a company when it comes to the utilization of its assets. They gauge how quick the company converts assets into cash or profits such as in terms of managing collection of its receivables or how quick can the company convert inventory into sales. These ratios are sometimes called as efficiency ratios, asset utilization ratios or asset management ratios

- Risk Management

There are several financial ratios that measure the ability of the company to meet their obligations either short or long-term. It can indicate if a business is doing well in terms of paying their bills or has been defaulting in their financial obligations. It is also an important tool to help predict possible financial troubles. These financial ratios measures how efficient and how effective is the company in terms of directing the flow of cash and how they take the opportunity in using these cash to earn and gain more cash to pay for their bills and investments.

Financial Ratios that Addressed Operating Profitability

When it comes to measuring the efficiency of a company to generate profits, the following profitability ratios can be used:

1. Gross Margin (Profit) Ratio - This measures the efficiency of the manufacturing and distribution of a company in the production process. It is computed by dividing the gross profit margin (the difference between the sales and cost of goods sold) by sales.

It is derived from this formula:

$$\text{Gross Margin Ratio} = \frac{\text{Sales} - \text{Cost of Goods Sold}}{\text{Sales}}$$

2. Return on Assets – This measures the effectiveness on how the company uses its assets to generate profits. It is computed by dividing the Net Income by the Total Assets:

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

3. Return on Equity - This measures the profit earned for every dollar invested in the company's stock. It is computed by dividing the Net Income by the Shareholder Equity:

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

Computation Illustration using Strident Marks

For purposes of illustration, let's say we use Strident Marks as our model company.

Please refer to the attached spreadsheets marked as Income Statement and Balance Sheet for the data as we go along with the computation of various financial Ratios.

FINANCIAL RATIOS	FORMULA	COMPUTATION	RESULTS
Gross Margin Ratio	<u>Sales – Cost of Sales</u>	<u>6,425,679 -2,675,733</u>	58%
	Sales	6,425,679	
Return on Assets	<u>Net Income</u>	<u>564,579.60</u>	5%
	Total Assets	11,513,608	
Return on Equity	<u>Net Income</u>	<u>564,579.60</u>	6%
	Shareholders' Equity	9,160,610	

For the Gross Margin Ratio, all the data for the equation can all be derived from Strident Marks' Balance Sheet, Sales being \$6,425,679 minus \$2,675,733 for the cost of goods sold is equal to a gross margin of \$3,749,946 divided by the sales that will result us to 58%.

For the Return on Assets ratio, we look into the balance sheet and the income statement for the data. The return on Assets ratio of 5% is a result of dividing the net income of \$564,579.60 by the total assets of \$11,513,608.

While on the Return on Equity ratio of 6% was derived by dividing the net income of \$564,579.60 by Strident Marks' total shareholders equity of \$9,160,610.

Financial Ratios that Measure Asset Utilization

Here are some ratios that provides for the efficiency of the company when it comes to using their assets to generate profits:

- Receivables turnover

Receivable turnover measures on how quick is the company with it collects its account receivables. It is computed by dividing the annual credit sales by the accounts receivables.

$$\text{Receivables Turnover} = \frac{\text{Total Net Sales}}{\text{Account Receivables}}$$

- Days of Receivables

Days of Receivables is used when receivables turnover is reported in the number of days that the credit sales remain in the account receivables before it is collected. It is derived by this formula:

$$\text{Days of Receivables} = \frac{\text{Accounts Receivables}}{\text{Annual Credit Sales} / 365}$$

Or

$$\text{Days of Receivables} = 365 / \text{Receivables Turnover}$$

There are also other ratios that can be used such as the Inventory turnover and the days of inventory, which is basically the same concept as Receivable turnover and the days of receivables but here we make use to compare cost of sales against inventory. The

days of receivables will tell us how fast the company disposes its inventory in terms of sales.

FINANCIAL RATIOS	FORMULA	COMPUTATION	RESULTS
Receivables Turnover	<u>Total Net Sales</u>	<u>6,425,679</u>	6.05
	Accts Receivables	1,060,932	
Days of Receivables	<u>365 days</u>	<u>365 days</u>	60 days
	Receivables turnover	6.05	

Both ratios make use data that are found from both the balance sheet and the income statement. For the Receivables Turnover, the formula involves the division of the total net sales which s \$6,425,679 by the total account receivables which is \$1,060,932 and the result is 6.05. On the other hand days of receivables is derived from divided 365 days to corresponds the no. of days of the year by the result of the receivables turnover ratio of 6.05, this will result to 60 days which means that Strident Marks, on the average takes them 60 days to collect their receivables.

Financial Ratios that Addressed Risk Management

Ability of the company to settle short-term obligations is a gauge of a company’s liquidity while the ability to meet their long-term obligations indicates the company’s solvency. Liquidity problems push companies to bankruptcy. Ability to predict this possibility is greatly aided by the use of these financial analysis tools.

Financial ratios that measures risk are categorized into two:

- Liquidity Ratios - Liquidity is an important aspect of a balance sheet. From a perspective of a cash flow, it shows the ability of the company to convert something to cash in a short period of time to pay the bills. Liquidity Problems have placed many auspicious businesses into bankruptcy

- i. Current Ratio – This measures the ability of the company to meet its short-term debts. It is derived from dividing the Current assets by the current liabilities:

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

- ii. Quick Ratio - one disadvantage of the current ratio is that it might include inventory that doesn't convert to cash easily and quickly. This is a drawback that can be answered by the use of quick ratio whereby inventory is deducted from the current assets before it is divided by the current liabilities. This is the formula:

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

- iii. Cash Ratio - this computes the liquidity ratio in the most conservative manner by only taking into account the cash and its equivalents in relation to test the ability of the company to pay its immediate obligations. The formula is as follows:

$$\text{Cash Ratio} = \frac{\text{Cash} + \text{Marketable Securities}}{\text{Current Liabilities}}$$

FINANCIAL RATIOS	FORMULA	COMPUTATION	RESULTS
Current Ratio	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	$\frac{3,750,142}{1,473,994}$	2.5
Quick Ratio	$\frac{\text{Current Assets} - \text{Invty.}}{\text{Current Liabilities}}$	$\frac{3,750,142 - 87,811}{1,473,994}$	2.48
Cash Ratio	$\frac{\text{Cash} + \text{M. Securities}}{\text{Current Liabilities}}$	$\frac{1,569,871 + 1,031,528}{1,473,994}$	1.76

b. Leverage Ratios – These measure solvency, the extent to which the firm is using its long term debt. These are prevalent among banks and lenders since it indicate how much of the business is financed by the lenders and how much of it comes from the ownerships. When the ratio results more than 100% it shows that the lenders gave in more of the capital than that of the owners which is mostly preferred by the owners since they will have more capital to invest that subsequently gives more opportunity to earn more and would mean more money for their pocket.. On the other hand, banks and lenders usually go for a lower ratio because it means that the company has the ability to pay its debt and provides lesser risk for default.

i. Debt Ratio – It can be derived by dividing the total debts by its total assets.

$$\text{Debt Ratio} = \frac{\text{Total Debts}}{\text{Total Assts}}$$

ii. Debt-to-Equity Ratio – It is computed by dividing the total debt by the total equity.

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

LEVERAGE RATIOS			
FINANCIAL RATIOS	FORMULA	COMPUTATION	RESULTS
Debt Ratio	<u>Total Liabilities</u>	<u>2,352,998</u>	0.20
	Total Assets	11,513,608	
Debt-to-Equity	<u>Total Liabilities</u>	<u>2,352,998</u>	0.25
	Stockholders Equity	9,160,610	

If you notice, both liquidity and leverage ratios make use of the information found on the balance sheet.

SUMMARY OF FINANCIAL RATIOS AND ANALYSIS

Financial Ratio	Results
Gross Margin Ratio	58%
Return on Assets	5%
Return on Equity	6%
Receivables Turnover	6.05
Days of Receivables	60 days
Current Ratio	2.5
Quick Ratio	2.48
Cash Ratio	1.76
Debt Ratio	0.20
Debt-to-Equity Ratio	0.25

1. Gross Margin Ratio

The Gross Margin Ratio of 58% indicates the ability of Strident to generate 58% on sales for their gross margin, that's the net after cost of sales, is deducted from the sales.

2. Return on Assets and Return on Equity

The result of 5% and 6% on the return on assets and return on equity, respectively, indicates that Strident Mark was able reap 5% based on its asset and a 6% percentage on the stockholders' equity in terms of profits. As a general rule, the greater the ratio the better, with the 5% and 6% yield, it is somehow on the low point, Strident still has to find ways and means to maximize the potentials of their assets to earn them higher yields and improve their efficiency.

3. Receivables Turnover & Days of Receivables:

With a receivables return of 6.05, it is said that Strident Marks has the ability to collect their receivables at an average of 60 days. The shorter time they can collect the better because it shows their efficiency in collection management.

4. Liquidity Ratios

With 2.5, 2.48 & 1.76 for current, quick and cash ratios, respectively, it just shows that Strident Marks has more money over its current obligations; it shows that they are highly liquid in terms of paying their immediate debts. If this is maintained or even improved, bankruptcy will be far away its life line.

5. Debt and Debt-to-Equity Ratios

The result indicates a reasonable level of solvency for the company when we compare both debt to assets and equity. It has more asset to pay off their debts.

Conclusion:

The initial analysis we just went through are only initial impressions more deepness can be achieved by further comparing latest performance from previous ones to establish a trend on where the company is really going to tell if they have maintained its financial position, or improved or rather has declined that would ring an alarm if it is the case. It is also good to compare it with the industry in order to get a good grasp on how are they doing against their competitions in the market.

References

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