Financial analysis is an analytical process that consists of a detailed "top to bottom" analysis of the company's financial statements and the development of comprehensive financial ratios on the Target Company.

1. **Analysis of Company’s Financial Statements—Side-By-Side**

   Side-by-side (vertical analysis) is an analytical process that compares the financial statements of the Target Company with companies in its peer group. The process is referred to as vertical due to the format and methodology employed in conducting the analysis. A typical format for side-by-side vertical analysis appears as follows:

<table>
<thead>
<tr>
<th>Target Company</th>
<th>Peer Grp Co #1</th>
<th>Peer Grp Co #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount %</td>
<td>Amount %</td>
<td>Amount %</td>
</tr>
</tbody>
</table>

   - Sales
   - Cost of Sales
   - Gross Margin
   - Gross Margin %
   - Operating Exp
   - Operating Inc
   - EBITDA

2. **Financial Statement Ratio Analysis**

   Certain ratios or accounting measures are measures of financial strength or lack thereof. The current and liquidity ratios determine the firm's ability to meet current obligations. Fixed asset turnover, inventory turnover, and accounts receivable turnover show the efficiency of asset utilization. The higher the turnover is the better the performance is because a relatively small amount of funds will be needed in order to operate.

   The stability of the relationship between borrowed funds and equity capital is set forth by certain equity ratios. The ratios of current liabilities, long-term liabilities, total liabilities, and owner's equity to total equity help assess the firm's ability to survive in times of stress and meet both short-term and long-term obligations. An adequate balance must exist between debt and equity. When the outsiders' interest increases, the owner has an advantage because of the benefit of a return on assets furnished by others. However, an increase in risk also occurs. Analyzing the equity structure and the interest expense provides insight: the relative cushion size of ownership funds creditors can rely on to absorb losses can be determined. Where unprofitable operations or a decrease in the value of the assets might be the cause of losses, profitability measures are useful in determining the adequacy of sales and operating profit. These ratios relate
net income or operating profits to total assets, net assets, net sales, or owners' equity. Meaningful trends can be seen when the profitability ratios are compared to prior years.

Common ratios may be given several different classifications. Some analysts classify all of the financial ratios into either profitability or liquidity ratios. Robert Morris Associates uses five basic classifications for its analysis.

Liquidity ratios
Coverage ratios
Leverage ratios
Operating ratios
Expense to sales ratios

Ratios under the first four classifications used by Robert Morris Associates are described below. Relevant expenses to sales ratios are included under operating ratios.

**Liquidity Ratios**

Liquidity ratios measure the quality of current assets and their adequacy to satisfy current obligations. The key liquidity ratios are discussed in the following sections.

1. **Current Assets Ratio**

\[
\text{Current assets} \quad \frac{\text{Current assets}}{\text{Current liabilities}} \quad = \quad \text{Current ratio}
\]

The current ratio indicates the entity’s ability to meet its short-term obligations on an ongoing basis with its current assets. A rule-of-thumb standard of 2:1 (current assets to current liabilities) is sometimes suggested as a minimum desired ratio so the resources that will become available during the operating cycle will be adequate to just cover obligations coming due during the same period. This standard implies the greater the ratio of current assets to current liabilities, the better. However, a very high current ratio can be suspicious. Perhaps the high ratio is indicative of an excess amount of idle cash on hand, an obsolete or overstocked inventory, a large amount of overdue accounts receivable, or a failure to use current “leverage” effectively (see section (c) below).

2. **Acid Test Ratio**

\[
\text{Current Assets} - (\text{Inventories} + \text{Prepaid Expenses}) \quad \frac{\text{Current Assets} - (\text{Inventories} + \text{Prepaid Expenses})}{\text{Current Liabilities}} \quad = \quad \text{Acid Test or Quick Ratio}
\]

The acid test (or quick) ratio measures the entity’s ability to meet its short-term obligations more or less immediately with the assets most easily converted into cash. Because it is an indicator of the firm’s ability to meet its currently maturing obligations out of its most
liquid assets, the quick ratio is especially appropriate in distress situations or in highly volatile businesses. A rule-of-thumb standard of 1:1 (quick assets over current liabilities) is often prescribed as the minimum desired quick ratio, but the interpretation of this ratio is subject to the same problems outlined for the current ratio.

3. Working Capital to Total Assets Ratio

\[
\frac{\text{Working Capital}}{\text{Total Assets}} = \text{Liquidity of Total Assets}
\]

The ratio of working capital to total assets measures the liquidity status of an entity’s total assets. It relates the firm’s short-term liquidity status to its overall financial position. Although no standard regarding the relationship between working capital and total assets exists, historical and industry comparisons that indicate excessive buildups or deficiencies in working capital can be made.

4. Accounts Receivable Turnover Ratio

\[
\frac{\text{Net Credit Sales}}{\text{Average Accounts Receivable}} = \text{Accounts Receivable Turnover}
\]

Accounts receivable turnover is an indicator of the number of times per period the entity fully collects (turns over) its accounts receivable. A relatively slow turnover (low ratio value) indicates an inability on the part of the firm to collect its accounts receivable on a timely basis (and perhaps the existence of significant un-collectable accounts). This could signify potential and/or existing cash flow problems. On the other hand, a turnover rate much in excess of the standard may also signal problems, such as a too stringent credit policy (causing lost sales to potential customers who cannot meet the firm’s overly restrictive credit requirements), and/or excessive early payment incentives (such as overly generous—and costly—cash discounts). Thus, a slow turnover of accounts receivable (in relation to the chosen standard—for example, the firm’s own credit terms and/or industry averages) should be considered unhealthy, but a very rapid turnover must also be investigated for potential problems.

Several points should be made regarding this ratio. Net credit sales (the numerator of the ratio) are sales on account minus sales returns and allowances and write-offs of uncollectable accounts. Sales returns and allowances and write-offs of un-collectable accounts should be deducted because they are, in effect, reductions to sales. Failure to exclude allowances and bad-debt write-offs would overstate the turnover of accounts receivable. Cash sales are also excluded: they were never recognized as receivables, and to include them would introduce an upward bias (overstatement) in accounts receivable turnover.

Average accounts receivable (the denominator) are used to eliminate the effect of fluctuations in accounts receivable balances. However, the average used is generally a simple average of beginning and ending balances, rather than a weighted or moving weekly, monthly, or
even quarterly average. (The additional computational effort required by these more sophisticated averaging procedures is seldom justified by the incremental precision derived.)

It is usually not difficult to determine net sales: the sales figure is reported in the income statement net of allowances and write-offs of un-collectable accounts, or the allowances and write-offs are disclosed separately in the statement. Determining credit sales from published financial statements, on the other hand, is probably impossible because few published financial statements distinguish between cash and credit sales. However, the dollar volume of cash transactions in U.S. business operations is negligible, and, therefore, consistent use of net sales (as opposed to net credit sales) does not, as a general rule, significantly bias the accounts receivable turnover figure.

As for averaging accounts receivable in the denominator, the analyst may or may not wish to follow this practice. Averaging reduces the effects of temporary fluctuations in accounts receivable on the accounts receivable turnover statistic, but it also tends to obscure or delay recognition of long-term trends in accounts receivable balances. (The average always lags behind the most recent data.) Because the balance in accounts receivable is determined at the same point in the company’s operating cycle year after year, increases or long-term trends are seen rather than temporary fluctuations. The current environment of the business, of course, may indicate otherwise; so be cautious in accepting this generalization at face value.

5. Age of Accounts Receivable Ratio

\[
\text{Number of days in accounting period} \quad \frac{\text{ accounts receivable turnover}}{=} \quad \text{Average age of accounts receivable}
\]

By dividing the accounts receivable turnover statistic (computed in section 4 above) into the number of days in the period covered by the net credit sales figure, the analyst can determine the average length of time it takes the company to collect its accounts receivable.

The average age of accounts receivable is interpreted in a manner similar to accounts receivable turnover. Unduly old accounts receivable indicate collection difficulties, and relatively young accounts might suggest other problems.

6. Inventory Turnover Ratio

\[
\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}} = \text{Inventory Turnover}
\]

Inventory turnover indicates the number of times the business liquidates (turns over) its inventory in the period covered by the cost-of-goods-sold figure. Previous comments regarding the use of averages in the denominator when computing accounts receivable turnover apply equally to the computation of inventory turnover.
For manufacturing businesses, inventory turnover statistics can be computed for all three types of inventory (raw materials, work-in-process, and finished goods) by relating the particular inventory to its counterpart in the income statement, as follows:

For raw materials:

\[
\frac{\text{Cost of Raw Materials Used}}{\text{Average Raw Materials Inventory}}
\]

For work-in-progress inventory:

\[
\frac{\text{Cost of good manufactured}}{\text{Average work-in-process inventory}}
\]

For finished goods inventory:

\[
\frac{\text{Cost of Goods Sold}}{\text{Averaged Finished Goods Inventory}}
\]

A relatively slow inventory turnover indicates potentially excessive (and perhaps obsolete) inventories. Excessive inventories portend obsolescence difficulties and perhaps unreasonable high inventory carrying charges. A relatively high turnover, however, may be indicative of burdensome opportunity costs in the form of lost sales caused by lack of inventory. In either case, inventory turnovers higher or lower than the standard should be investigated for potential problems.

7. Age of Inventory Ratio

\[
\frac{\text{Number of Days in Accounting Period}}{\text{Inventory Turnover}} = \text{Average Age of Inventory}
\]

By dividing the appropriate inventory turnover statistic (computed in section 6) into the number of days in the period covered by the income statement, the analyst can determine the average length of time it takes the entity to turn over its inventories.

The average age of inventories is interpreted in the same manner as the inventory turnover ratio (section 6). Old inventory suggests overstocking and possible obsolescence; a very young inventory suggests the possibility of inadequate supplies to achieve the firm’s potential sales level.
8. Length of Operating Cycle Ratio

\[
\text{Average Age of Accounts Receivable} + \text{Average Age of Inventory} = \text{Approximate length of firm’s operating cycle}
\]

This statistic indicates the length of time it would take for cash put into inventory to be converted first into accounts receivable and then back into cash. For short-term borrowing situations, knowing the length of the borrowing company’s operating cycle is crucial because it indicates the minimum length of time (on the average) required for cash to be generated from operations and hence be available for repayment of the short-term loan. A 60-day inventory loan to a firm with a 90-day operating cycle would, other considerations aside, be ill advised. In attempting to turnaround a business in financial difficulty, the length of its operating cycle is critical.

**Coverage Ratios**

Coverage ratios measure the ability of firms to service debt. Debt service involves both interest and required principal repayments. The key coverage ratios are described here.

1. **Times Interest Earned Ratio**

\[
\frac{\text{Net Income} + \text{Annual Interest Expense} + \text{Income Taxes}}{\text{Annual Interest Expense}} = \text{Times Interest Earned Ratio}
\]

The times interest earned ratio measures the enterprise’s ability to pay its interest charges out of earnings. Interest expense is added back into the numerator because interest costs were already covered by operations in arriving at net income. Income taxes are added back into the denominator because interest is paid out of pretax income (that is, it is deductible in arriving at taxable income). The smaller the times interest earned ratio is the greater the risk of business failure caused by inability to meet periodic interest payments. Sudden downturns in operations, even if temporary, could be disastrous for a firm with “thin” interest coverage.

2. **Times Preferred Dividends Earned Ratio**

As a practical matter, when analyzing financial statements, preferred stockholders and long-term creditors are concerned with many of the same factors. Unless the preferred stock is convertible into common stock, preferred stock generally has more in common with debt securities than with equity securities; that is, the preferred stock stipulates certain preferences (preferred as to a specified dividend, or as to assets in liquidation, and so on) that are not found in common stocks. As a result, preferred stockholders’ information requirements are largely
concerned with the risk inherent in the investment. On the basis of that risk, they are concerned
an appropriate purchase price be established for the stock in light of the fixed dividend rate.
Among the statistics particularly relevant to a preferred stockholder are the following:

\[
\begin{array}{ccc}
\text{Net Income} & \text{Times Preferred} \\
\text{Preferred Dividend Requirement} & = \text{Dividends} \\
& \text{Earned Ratio}
\end{array}
\]

The times preferred dividends earned ratio measures the enterprise’s ability to meet
stipulated preferred dividend commitments out of current earnings. Note income taxes are not
added back to net income here as they were in the times interest earned ratio because preferred
dividends, being nondeductible for tax purposes, are paid out of after-tax income. The ratio
merely indicates the ability of the enterprise to meet dividend requirements out of after-tax
earnings; it does not mean the board of directors will necessarily declare such dividends.
Because, legally, preferred stocks are equity securities, declaration of dividends on them is left to
the discretion of the board of directors. As a general rule, preferred dividend payments are
relatively assured either by cumulative provisions or by tradition.

3. Cash Flow to Debt Repayment Ratio

\[
\frac{\text{Cash Flow from Operations}}{\text{Debt Repayment}}
\]

This ratio measures the ability of the debtor to make debt payments after all other
payments have been made. Cash flow from operations should be calculated after interest and
taxes.

The ratios above may be combined into one fixed coverage ratio consisting of the net
income from operations before interest and taxes divided by both interest expense and principal
repayments.

**Leverage Ratios**

Leverage ratios measure the ability of a firm to survive a business downturn. Key
leverage ratios are described in the following sections.

1. Relationship of Debt to Equity Ratio

Like short-term creditors, long-term creditors are primarily concerned with the
enterprise’s debt-paying ability in their analysis of financial statements. Consequently, even
though the debt is outstanding for a longer time period, the immediate debt-paying ability of the
enterprise as indicated by the statistics presented in the previous section is a vital concern to the
long-term creditor as well. In addition to those short-term statistics, the following statistics relate
primarily to the information needs of long-term creditors:
Total Debt
\[ \frac{\text{Total Debt}}{\text{Total Assets}} = \text{Debt Ratio} \]

Total Owners’ Equity
\[ \frac{\text{Total Owners’ Equity}}{\text{Total Assets}} = \text{Equity Ratio} \]

Total Debt
\[ \frac{\text{Total Debt}}{\text{Total Owner’s Equity}} = \text{Debt to Equity, or Debt/Equity Ratio} \]

These three statistics measure the same thing: the extent of “leverage” in the enterprise’s financial structure. Leverage means using debt and/or preferred stock financing at a fixed interest/dividend rate to improve the rate of return on common stockholders’ equity.

To illustrate, a company that has total assets of $400,000 and no liabilities and is earning $80,000 before taxes of 50 percent would be returning 10 percent on invested capital as follows:

\[ 0.5(\$80,000) \div \$400,000 = 10\% \]

If that same company had total debt of $200,000 that carried an 8 percent interest rate, it would be returning 16 percent on invested capital as follows:

\[ 0.5(\$80,000 - (0.08 \times \$200,000)) \div \$200,000 = 16\% \]

As long as the company is successfully covering its fixed interest charges, trading on the equity (another term for leverage) is a positive factor for common stockholders. For creditors, however, highly leveraged companies represent a greater risk than non-leveraged companies for these reasons:

The interest payments represent a fixed cash commitment. Any sudden downturn in the business’s operations might find the enterprise, because of insufficient cash inflows, unable to make interest payments and, therefore, vulnerable to bankruptcy.

Greater leverage means the cushion between solvency and insolvency is correspondingly reduced, and assets must be spread over a greater number (or at least a larger amount) of claims in the case of business failure.

At least for smaller, closely held enterprises with less of their own capital invested in the company, some feel residual stockholders might be less committed to the success of the business.
In any case, an analyst would have no reason to compute all three of the above debt and equity ratios because computation of any one of them indicates the extent to which enterprise assets are financed with debt and/or equity capital. The evaluation of these ratios depends on whether the evaluator is a potential long-term creditor grantor or an equity investor.

2. Fixed Assets to Owners’ Equity Ratio

\[
\frac{\text{Net Fixed Assets}}{\text{Total owners’ equity}} = \text{Fixed Assets to Owners’ Equity Ratio}
\]

This ratio measures the extent to which the owners of a company have invested in the property, plant, and equipment. A high ratio would indicate that most of the equity of the business has been invested in fixed assets and very little cushion may be left for the equity holders if the business liquidates.

**Operating Ratios**

The operating ratios measure the performance of the company. They examine the relationships of profit to sales and profit to investment. Key ratios include the following:

1. Return on Sales Ratio

\[
\frac{\text{Net Income}}{\text{Sales}} = \text{Returns on sales}
\]

This “component percentage” is an indicator of enterprise efficiency. The greater the percentage is, the more efficient the enterprise. Improvements in operating efficiency may be achieved by reducing costs and expenses of operations while holding sales constant or increasing sales while holding costs and expenses constant (or at least increasing costs and expenses at a slower rate than sales are increasing). In either case, the issue is obtaining greater amounts of output relative to input.

2. Asset Turnover Ratio

\[
\frac{\text{Sales}}{\text{Total assets}} = \text{Asset turnover}
\]

This cross-financial statement ratio indicates operating effectiveness. It measures the number of times total assets are covered by operating revenue. Asset turnovers of different companies can be compared to determine the extent to which the enterprise is effectively employing its assets. (A high turnover would generally be considered favorable; a low turnover would generally be considered unfavorable.)
3. Ratio on Inventory Ratio

The ultimate operating success or failure of an enterprise is a function of both efficiency and effectiveness as reflected in the return on investment (ROI) statistic.

\[
\text{Return on investment} = \frac{\text{Net income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Investment}}
\]

The “investment” amount may be total assets, as in the asset turnover ratio, or it may be common stockholders’ equity. The former definition is appropriate to determine return on total assets committed to enterprise operations; the latter reflects the rate of return on common stockholders’ equity, taking into account the effect of leverage.

In either case, return on investment may be improved by operating efficiency (increasing return on sales), operating effectiveness (increasing investment turnover), or a combination of efficiency and effectiveness improvements.

As an example, assume that Alpha Co. had a 10% return on sales and an investment turnover of two times per year as follows:

\[
\text{Return on sales} = \frac{\text{(Net income) $150,000}}{\text{(Sales) $1,500,000}} = 10%
\]

\[
\text{Investment turnover} = \frac{\text{(Sales) $1,500,000}}{\text{(Investment) $750,000}} = 2 \text{ times}
\]

Alpha Co.’s return on investment would be:

\[
\frac{\text{(Net income) $150,000}}{\text{(Investment) $750,000}} = 20%
\]

or (10% Return on Sales x Investment Turnover of 2 = 20%)

If we know (by examining the performance of other firms in the industry) that an ROI of 30 percent is more in line with industry performances, we can compare Alpha’s return on sales and investment turnover to ascertain the source of its problems(s).

To improve Alpha’s ROI performance, we could either improve its return on sales to 15 percent (for example, by cutting costs, and thereby increasing net income while maintaining
constant sales); or we might be able to improve its asset turnover to three times per year (for example, by reducing the amount of investment while maintaining constant sales). Either strategy would bring Alpha’s ROI in line with industry performance. Note, however, that unless improvements are made in one or both of the component ROI ratios (return on sales and investment turnover), increasing sales will not improve return on investment!

For example, assume Alpha Co. could increase its sales by $500,000 over its current sales level if it spent $250,000 to renovate its production facility. Because the company is already operating at peak efficiency, it is unlikely that the firm’s return on sales would increase above the present 10 percent level. If Alpha successfully completed the necessary renovations and achieved the anticipated sales level, its return on investment would be unchanged, as follows:

\[
\frac{\text{Net income}}{\text{Investment}} = \frac{200,000}{1,000,000} = 20\%
\]

Return on sales was not improved and the increased investment negated the effect of the sales increase, leaving the investment turnover unchanged:

\[
\frac{\text{Sales}}{\text{Investment}} = \frac{1,500,000 \div 500,000}{750,000 \div 250,000} = 2 \text{ times per year}
\]

Indeed, if Alpha had to borrow to finance the renovation, its return on sales (after interest expense) and, therefore, its return on investment would decline.

Increasing sales is almost always much easier said than done. Failure to meet the projected sales increase after increasing the investment base would negate to some extent any gains that might have been made in operating efficiency.

4. Earnings per Share Ratio

Of all the various financial ratios, none has received the attention the earnings per share (EPS) statistic has received. Arguments abound in accounting and finance literature regarding the significance of EPS. Yet, because of its presumed importance to investors in common stock, earnings per share is the only financial ratio for which the computation has been meticulously prescribed by the designated standard setting authority for financial reporting.

The essence of the earnings per share statistic is reflected in the computation of EPS for the “simple capital structure” situation, as follows:

\[
\text{Net Income} - \text{Dividends on Non-Common Stock - Equivalent Senior Securities} \div \text{Weighted Average Number of Outstanding Common Shares} = \text{Earnings Per Share (EPS)}
\]
EPS, then, is significant to the investor in common stock in that it reflects the amount of enterprise earnings attributable to each share of residual (common) stock. As such, the EPS statistic provides some information about the dividend-paying ability of the company (although the amount of dividends actually distributed, if any, is left to the discretion of the board of directors). Also, because there is a presumed relationship between the earning capacity of the stock and its value, the statistic can be used to evaluate the current selling price of the stock.

In evaluating the current selling price of the stock, the EPS statistic itself is used as a component of another widely used statistic—the price/earnings (P/E) ratio.

5. Price Earnings Ratio

\[
\frac{\text{Current Market Price per Share of Stock}}{\text{EPS}} = \text{Price/Earnings (P/E) Ratio}
\]

The price/earnings multiple reflects the number of dollars investors are willing to pay per dollar of earnings for that particular stock. Comparing the computed P/E ratio with the P/E ratios of other companies in the same industry and/or with industry average P/E ratios enables the investor to evaluate the current selling price of the stock. A low P/E ratio (other things being equal) relative to the ratios compared would be conducive to investment (that is, the security is said to be under priced); a high P/E ratio, using similar reasoning, is not considered conducive to investment.

In addition to EPS and the P/E ratio, another ratio, book value per share, is often computed in connection with common stock investments, although its significance is relatively limited.

\[
\frac{\text{Total Assets} - \text{Total Liabilities} + \text{Claims of Senior Equity Securities}}{\text{Number of Common Shares Outstanding}} = \text{Book Value per Common Share}
\]

There is seldom any reason for computing book value per common share unless the analyst is interested in determining the availability of enterprise assets to residual stockholders in liquidation. However, because enterprise assets are usually valued at historical cost in accordance with generally accepted accounting principles, it is unlikely the amount of book value per common share (computed for a going concern) is sufficiently informative for this purpose to warrant its computation. If, on the other hand, liquidation of the enterprise is imminent and assets have been revalued accordingly, the common stockholder’s cash planning efforts might very well benefit from this statistic.

The amounts of total assets and total liabilities, and the number of outstanding common shares in the ratio are self-explanatory. Claims of senior equity securities include the liquidation value of outstanding preferred shares as well as any specified cumulative and participative
preferences. Thus, if assets have been revalued accordingly, the numerator of the ratio reflects the value of assets available to common stockholders after satisfying claims of creditors and senior equity security holders in liquidation. If assets have not been revalued, and the call price of preferred stock (rather than its liquidation value) is deducted in the numerator, the resultant book value figure roughly measures common stockholders’ equity in the going concern on a per-share basis.

6. Gross Margin Ratio

\[
\frac{\text{Gross Margin}}{\text{Sales}}
\]

The gross margin, sometimes called gross profit, is the difference between sales and the cost of goods sold. For a manufacturing concern, it represents the difference between sales and the manufacturing cost for the goods sold. For many companies in financial difficulty, the gross margins are often out of line with other firms within the same industry.

Use of Other Measurements

Another approach is to apply analytical procedures using non-financial statement data. For example, the measures in valuing a retail store might be average sales per stores, sales per square footage, contribution margin per store, and same store revenue and profits.

1. Other Items to Consider

- **Comparability of information**—Accurate and reliable analysis requires that information be consistently presented. Accounting policies must be understood for the target company and its peer group and differences eliminated for comparative purposes. GAAP allows for some latitude and the user should satisfy himself that accounting policies are consistent.

  Examples
  - Use of LIFO vs. FIFO for inventory valuation
  - Nonrecurring adjustments/Extraordinary items
  - Accrual of environmental and tort liabilities
  - Retirement plans
  - Adjustments to EBITDA

- **Consistency of ratios**—It is of the utmost importance when using both side by side and ratio analysis that financial analysis and ratios be consistently computed. There are more than one way to compute many ratios.
**Interpretation/Evaluation-Significance**

After the analysis comes the process of determining what the financial statement relationships and ratios mean. Are they good or bad, informative or not informative? How does the Target Company compare to other companies in its peer group or its industry?

Evaluation generally has three stages:

1. Compare the target Company's relevant ratios to standard or benchmark ratios. Developing benchmarks in a particular industry may make the ratios more meaningful and enable the target Company to compare its performance to that of its peer group and competitors. Industry benchmark ratios may be developed during the peer group analysis by selecting the most favorable financial ratios of companies in the peer group as the benchmark;

2. Analyze changes in the target Company's ratios over time and attempt to discern patterns that have developed or may be developing (known as time series analysis);

3. "Decomposition analysis"; an in-depth examination of each financial relationship, or breaking the ratios down into their individual components and examining each in detail. The purpose of this is to determine the quality of a ratio.

The target Company's financial ratios should be compared to the ratios of firms in its industry.

1. The use of industry averages as standards of reference implies the assumption that the industry is correct.

2. Industry averages can be obtained for many ratios and most industries from credit reporting firms
   RMS
   Dun and Bradstreet
   Standard & Poor's

Examples of areas that are exposed as a result of this analytical process and related observations follow:

<table>
<thead>
<tr>
<th>Area</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory turnover</td>
<td>Target Company inventory turned less than peer group; could be indicative of numerous management problems, including poor production scheduling and forecasting processes.</td>
</tr>
<tr>
<td>Accounts receivable DSO</td>
<td>Target Company DSO higher than peer group; could be indicative of service problems, collection problems, etc.</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Accounts payable days</td>
<td>Target Company days are lower than peer group; could be indicative of poor use of trade credit, less favorable credit terms, poor working capital management.</td>
</tr>
</tbody>
</table>

**Qualitative Peer Group Analysis**

A more difficult analysis than quantitative; highly judgmental. Steps may include:

1. Interview key management of the Target Company; determine strengths and weaknesses by functional area as compared to peer group/competitors: "What do your competitors do better than you and why?"

2. Analyze the company profile section of the 10K and other data sources for both the Target Company and its competitors. Other data such as plant locations, number of employees, recent acquisitions, brand names and product lines, and information systems may be relevant. This information can be informative and useful in understanding the Target Company.

3. Analyze analyst reports.

Collectively, this information can provide greater insight into the workings of the industry, the viability of the target Company's position in the industry, and its chances/opportunities for improvement.