

Article # 1126

Technical Note: Understanding the Ratio Analysis Report

Difficulty Level: Beginner Level AccountMate User

Version(s) Affected: AccountMate 10 for SQL, Express, and LAN
AccountMate 9 for SQL, Express, and LAN
AccountMate 8 for LAN

Module(s) Affected: GL

Posting Date: 08/28/2019

DESCRIPTION

The **Ratio Analysis Report** function in the **General Ledger** module generates a report that can help you compare the company's financial status and performance; not only with your company's own goals, but also with your competitor's goals and the industry standards. It also provides information necessary to help you make intelligent business decisions.

This Technical Note discusses the prerequisites for using the **Ratio Analysis Report**, shows the formula for calculating each ratio, and identifies which ratio is preferable - a higher or lower one. This document is also provided to explain the significance of the ratio group in the GL Account ID record and to identify which ratios are not applicable in a company that uses fund accounting.

SOLUTION

Prerequisites to using the Ratio Analysis Report

To use the Ratio Analysis Report, you must first activate the Ratio Analysis feature by performing these steps:

1. Access the **GL Module Setup** function from the **Housekeeping** menu.
2. In the **General** tab, mark the **Use Ratio Analysis Feature** checkbox.
3. Click the **OK** button to close the **GL Module Setup** window.
4. Access the **Chart of Accounts Maintenance** function; then, verify in the **Information** ► **Ratio Group** field that an appropriate ratio group is assigned to each applicable GL Account ID record.

Ratio Formula and Preferred Ratio Level

When you have activated the Ratio Analysis feature, you can access the **Ratio Analysis Report** and select in the report interface an option to generate the ratio you need. The table below illustrates for each ratio the calculation formula and the preferred ratio level that is either higher or lower than your company's goals, your competitors' performance or industry standards:

Ratio	Formula	Preferred Ratio Level												
Accounts Receivable Ratios														
Average Age of Receivables	$\frac{\text{Average Accounts Receivable}}{\text{Credit Sales}}$ <p><i>The Average Account Receivables is calculated as follows:</i></p> <table> <tr> <td>Beginning A/R balance</td> <td>\$ xxx.xx</td> </tr> <tr> <td>Add: Ending A/R balance</td> <td><u>xxx.xx</u></td> </tr> <tr> <td>Total</td> <td>xxx.xx</td> </tr> <tr> <td>Divided by</td> <td><u>2</u></td> </tr> <tr> <td>Average Accounts Receivable</td> <td>\$ xxx.xx</td> </tr> <tr> <td></td> <td>=====</td> </tr> </table>	Beginning A/R balance	\$ xxx.xx	Add: Ending A/R balance	<u>xxx.xx</u>	Total	xxx.xx	Divided by	<u>2</u>	Average Accounts Receivable	\$ xxx.xx		=====	Lower
Beginning A/R balance	\$ xxx.xx													
Add: Ending A/R balance	<u>xxx.xx</u>													
Total	xxx.xx													
Divided by	<u>2</u>													
Average Accounts Receivable	\$ xxx.xx													
	=====													
Accounts Receivable Turnover	$\frac{\text{Credit Sales}}{\text{Average Accounts Receivable}}$	Higher												
Days of Sales in Accounts Receivable	$\frac{\text{Accounts Receivable}}{\text{Credit Sales}}$	Lower												
Inventory Ratios														
Average Days to Turnover	$\frac{\text{Average Inventory}}{\text{Cost of Goods Sold}}$ <p><i>The Average Inventory amount is calculated as follows:</i></p> <table> <tr> <td>Beginning Inventory balance</td> <td>\$ xxx.xx</td> </tr> <tr> <td>Add: Ending Inventory balance</td> <td><u>xxx.xx</u></td> </tr> <tr> <td>Total</td> <td>xxx.xx</td> </tr> <tr> <td>Divided by</td> <td><u>2</u></td> </tr> <tr> <td>Average Inventory</td> <td>\$ xxx.xx</td> </tr> <tr> <td></td> <td>=====</td> </tr> </table>	Beginning Inventory balance	\$ xxx.xx	Add: Ending Inventory balance	<u>xxx.xx</u>	Total	xxx.xx	Divided by	<u>2</u>	Average Inventory	\$ xxx.xx		=====	Lower
Beginning Inventory balance	\$ xxx.xx													
Add: Ending Inventory balance	<u>xxx.xx</u>													
Total	xxx.xx													
Divided by	<u>2</u>													
Average Inventory	\$ xxx.xx													
	=====													

Days of Sales in Inventory	$\frac{\text{Ending Inventory}}{\text{Cost of Goods Sold}}$	Lower												
Inventory Turnover	$\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$	Higher												
Profitability Ratios														
Asset Turnover	$\frac{\text{Net Sales}}{\text{Average Total Assets}}$ <p><i>Here is the calculation for the Average Total Assets:</i></p> <table> <tr> <td>Beginning Total Assets amount</td> <td>\$ xxx.xx</td> </tr> <tr> <td>Add: Ending Total Assets amount</td> <td><u>xxx.xx</u></td> </tr> <tr> <td>Total</td> <td>xxx.xx</td> </tr> <tr> <td>Divided by</td> <td><u>2</u></td> </tr> <tr> <td>Average Total Assets</td> <td>\$ xxx.xx</td> </tr> <tr> <td></td> <td>=====</td> </tr> </table>	Beginning Total Assets amount	\$ xxx.xx	Add: Ending Total Assets amount	<u>xxx.xx</u>	Total	xxx.xx	Divided by	<u>2</u>	Average Total Assets	\$ xxx.xx		=====	Higher
Beginning Total Assets amount	\$ xxx.xx													
Add: Ending Total Assets amount	<u>xxx.xx</u>													
Total	xxx.xx													
Divided by	<u>2</u>													
Average Total Assets	\$ xxx.xx													
	=====													
Gross Profit Ratio	$\frac{\text{Gross Profit}}{\text{Net Sales}}$	Higher												
Profit Margin	$\frac{\text{Net Income}}{\text{Net Sales}}$	Higher												
Return on Total Assets	$\frac{\text{Net Income} + \text{Int. Expense (Net of Tax)}}{\text{Average Total Assets}}$	Higher												
Return on Stockholder's Equity	$\frac{\text{Net Income}}{\text{Average Stockholder's Equity}}$ <p><i>Here is the calculation for the Average Stockholder's Equity:</i></p> <table> <tr> <td>Beginning Stockholder's Equity</td> <td>\$ xxx.xx</td> </tr> <tr> <td>Add: Ending Stockholder's Equity</td> <td><u>xxx.xx</u></td> </tr> <tr> <td>Total</td> <td>xxx.xx</td> </tr> <tr> <td>Divided by</td> <td><u>2</u></td> </tr> <tr> <td>Average Stockholder's Equity</td> <td>\$ xxx.xx</td> </tr> <tr> <td></td> <td>=====</td> </tr> </table>	Beginning Stockholder's Equity	\$ xxx.xx	Add: Ending Stockholder's Equity	<u>xxx.xx</u>	Total	xxx.xx	Divided by	<u>2</u>	Average Stockholder's Equity	\$ xxx.xx		=====	Higher
Beginning Stockholder's Equity	\$ xxx.xx													
Add: Ending Stockholder's Equity	<u>xxx.xx</u>													
Total	xxx.xx													
Divided by	<u>2</u>													
Average Stockholder's Equity	\$ xxx.xx													
	=====													

Liquidity Ratios														
Acid-Test	$\frac{\text{Quick Assets}}{\text{Current Liabilities}}$ <p><i>The Quick Assets is calculated as follows:</i></p> <table> <tr> <td>Cash</td> <td>\$ xxx.xx</td> </tr> <tr> <td>Add: Marketable Securities</td> <td>xxx.xx</td> </tr> <tr> <td>Receivables (Net)</td> <td><u>xxx.xx</u></td> </tr> <tr> <td>Total Quick Assets</td> <td>\$ xxx.xx</td> </tr> <tr> <td></td> <td>=====</td> </tr> </table>	Cash	\$ xxx.xx	Add: Marketable Securities	xxx.xx	Receivables (Net)	<u>xxx.xx</u>	Total Quick Assets	\$ xxx.xx		=====	Higher		
Cash	\$ xxx.xx													
Add: Marketable Securities	xxx.xx													
Receivables (Net)	<u>xxx.xx</u>													
Total Quick Assets	\$ xxx.xx													
	=====													
Current Ratio	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	Higher												
Stability Ratios														
Debt Ratio	$\frac{\text{Total Liabilities}}{\text{Total Assets}}$	Lower												
Debt-to-Equity Ratio	$\frac{\text{Total Liabilities} - \text{Stockholder Loans}}{\text{Stockholder Equity} + \text{Stockholder Loans}}$	Lower												
Equity Ratio	$\frac{\text{Stockholder Equity} + \text{Stockholder Loans}}{\text{Total Assets}}$	Higher												
Return on Long-Term Capital	$\frac{\text{Net Income} + \text{Int. Exp. on Long-Term Debt Ave.}}{\text{Total Assets} - \text{Ave. Current Liabilities}}$ <p><i>Average Current Liabilities is calculated as follows:</i></p> <table> <tr> <td>Beginning Current Liabilities</td> <td>\$ xxx.xx</td> </tr> <tr> <td>Add: Ending Current Liabilities</td> <td><u>xxx.xx</u></td> </tr> <tr> <td>Total</td> <td>xxx.xx</td> </tr> <tr> <td>Divided by</td> <td><u>2</u></td> </tr> <tr> <td>Average Current Liabilities</td> <td>\$ xxx.xx</td> </tr> <tr> <td></td> <td>=====</td> </tr> </table>	Beginning Current Liabilities	\$ xxx.xx	Add: Ending Current Liabilities	<u>xxx.xx</u>	Total	xxx.xx	Divided by	<u>2</u>	Average Current Liabilities	\$ xxx.xx		=====	Higher
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Add: Ending Current Liabilities	<u>xxx.xx</u>													
Total	xxx.xx													
Divided by	<u>2</u>													
Average Current Liabilities	\$ xxx.xx													
	=====													
Times Interest Earned	$\frac{\text{Pre-tax Operating Income}}{\text{Interest Expense}}$ <p><i>Pre-tax Operating Income is calculated as follows:</i></p> <table> <tr> <td>Net Income</td> <td>\$ xxx.xx</td> </tr> <tr> <td>Add: Interest Expense</td> <td>xxx.xx</td> </tr> <tr> <td>Taxes</td> <td><u>xxx.xx</u></td> </tr> <tr> <td>Pre-tax Operating Income</td> <td>\$ xxx.xx</td> </tr> <tr> <td></td> <td>=====</td> </tr> </table>	Net Income	\$ xxx.xx	Add: Interest Expense	xxx.xx	Taxes	<u>xxx.xx</u>	Pre-tax Operating Income	\$ xxx.xx		=====	Higher		
Net Income	\$ xxx.xx													
Add: Interest Expense	xxx.xx													
Taxes	<u>xxx.xx</u>													
Pre-tax Operating Income	\$ xxx.xx													
	=====													

Stockholder Valuation Ratios														
Book Value per Common Share	$\frac{\text{Common Stockholder's Equity}}{\text{Outstanding Common Shares}}$	Higher												
Earnings per Share	$\frac{\text{Net Income} - \text{Preferred Dividends}}{\text{Average Common Shares Outstanding}}$ <p><i>Average Common Shares Outstanding is calculated as follows:</i></p> <table style="margin-left: 40px;"> <tr> <td>Beg. Common Shares Outstanding</td> <td style="text-align: right;">\$xxx.xx</td> </tr> <tr> <td>Add: Ending Common Shares Outstanding</td> <td style="text-align: right;">xxx.xx</td> </tr> <tr> <td>Total</td> <td style="text-align: right;"><u>xxx.xx</u></td> </tr> <tr> <td>Divided by</td> <td style="text-align: right;"><u>2</u></td> </tr> <tr> <td>Ave. Common Shares Outstanding</td> <td style="text-align: right;">\$xxx.xx</td> </tr> <tr> <td></td> <td style="text-align: right;">=====</td> </tr> </table>	Beg. Common Shares Outstanding	\$xxx.xx	Add: Ending Common Shares Outstanding	xxx.xx	Total	<u>xxx.xx</u>	Divided by	<u>2</u>	Ave. Common Shares Outstanding	\$xxx.xx		=====	Higher
Beg. Common Shares Outstanding	\$xxx.xx													
Add: Ending Common Shares Outstanding	xxx.xx													
Total	<u>xxx.xx</u>													
Divided by	<u>2</u>													
Ave. Common Shares Outstanding	\$xxx.xx													
	=====													
Price/Earnings	$\frac{\text{Ending Market Price per Common Share}}{\text{Earnings per Share}}$	Higher												

Significance of the Ratio Group in the GL Account ID Record

In the **Chart of Accounts Maintenance ► Information ► Ratio Group** field, you must assign an appropriate ratio group in the applicable GL Account ID record. Incorrect assignment or non-assignment of a ratio group in a GL Account ID record results in an inaccurate ratio. Analysis of the company's financial status and performance based upon incorrect ratios may result in inappropriate business decisions.

For example, if you assign a "Cash" ratio group to the Trade Accounts Receivable GL Account ID record, the Age of Receivables ratio will be understated. The presence of a low Age of Receivables ratio means that it takes a short amount of time to collect your accounts receivable. If the reported Age of Receivables ratio is lower than what it should be, you may not be aware that there is a problem with accounts receivables collection; thus, no decisions will be made for its resolution.

Ratios that are Not Applicable to a Nonprofit Company

If your company is using fund accounting, the following ratios are not applicable:

- All Profitability Ratios including Asset Turnover, Gross Profit, Profit Margin, Return on Total Assets, and Return on Stockholder's Equity
- Debt-to-Equity Ratio
- Equity Ratio
- All Stockholder Valuation Ratios including Book Value per Common Share, Earnings per Share, and Price/Earnings.

Understanding the **Ratio Analysis Report** can help you better understand the Ratio Analysis feature, the formulae for the financial and performance ratios, and the significance of assigning appropriate ratio groups in the GL Account ID records as well as the ratios that are not applicable to nonprofit companies.

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