HOW TO GET THE MOST VALUE FROM RMA’S ANNUAL STATEMENT STUDIES®:
UNDERSTANDING THE RATIOS

PART 2 IN A SERIES OF 7 GUIDES

Enterprise Risk • Credit Risk • Market Risk • Operational Risk • Regulatory Affairs • Securities Lending
RMA’s Annual Statement Studies: Financial Ratio Benchmarks features 19 of the most widely used ratios in the financial services industry, including various types of liquidity, coverage, leverage, and operating ratios.

On each data page of the Financial Ratio Benchmarks book, below the common size balance sheet and income statement information, you will find a series of ratios computed from the financial statement data.

*Here is how these figures are calculated for any given ratio:*

1. The ratio is computed for each financial statement in the sample.

2. These values are arrayed (listed) in an order from the strongest to the weakest. In interpreting ratios, the “strongest” or “best” value is not always the largest numerical value, nor is the “weakest” always the lowest numerical value. (For certain ratios, there may be differing opinions as to what constitutes a strong or a weak value. RMA follows general banking guidelines consistent with sound credit practice to resolve this problem.)

3. The array of values is divided into four groups of equal size. The description of each ratio appearing in the *Statement Studies* provides details regarding the arraying of the values.

**WHAT ARE QUARTILES?**

Each ratio has three points, or “cutoff values,” that divide an array of values into four equal-sized groups called quartiles, as shown below. The quartiles include the upper quartile, upper-middle quartile, lower-middle quartile, and the lower quartile. The upper quartile is the cutoff value where one-quarter of the array of ratios falls between it and the strongest ratio. The median is the midpoint—that is, the middle
cutoff value where half of the array falls above it and half below it. The lower quartile is the point where one-quarter of the array falls between it and the weakest ratio. In many cases, the average of two values is used to arrive at the quartile value. You will find the median and quartile values on all *Statement Studies* data pages in the order indicated in the following chart.

**WHY USE MEDIANS/QUARTILES INSTEAD OF THE AVERAGE?**

There are several reasons why medians and quartiles are used instead of an average. Medians and quartiles eliminate the influence of an “outlier” (an extremely high or low value compared to the rest of the values). They also more accurately reflect the ranges of ratio values than a straight averaging method would.

It is important to understand that the spread (range) between the upper and lower quartiles represents the middle 50% of all the companies in a sample. Therefore, ratio values greater than the upper quartile or less than the lower quartile may begin to approach “unusual” values.
NONCONVENTIONAL VALUES:

For some ratio values, you will occasionally see an entry that is other than a conventional number. These entries are defined as follows:

(1) **UND** — This stands for “undefined,” the result of the denominator in a ratio calculation approaching zero.

(2) **NM** — This may occasionally appear as a quartile or median for the ratios sales/working capital, debt/worth, and fixed/worth. It stands for “no meaning” in cases where the dispersion is so small that any interpretation is meaningless.

(3) **999.8** — When a ratio value equals 1,000 or more, it also becomes an “unusual” value and is given the “999.8” designation. This is considered to be a close enough approximation to the actual unusually large value.

LINEAR VERSUS NONLINEAR RATIOS:

An array that is ordered in ascending sequence or in descending sequence is linear. An array that deviates from true ascending or true descending when its values change from positive to negative (low to high positive, followed by high to low negative) is non-linear.

A specific example of a nonlinear ratio would be the Sales/Working Capital ratio. In other words, when the Sales/Working Capital ratio is positive, then the top quartile would be represented by the *lowest positive* ratio. However, if the ratio is negative, the top quartile will be represented by the *highest negative* ratio! In a nonlinear array such as this, the median could be either positive or negative because it is whatever the middle value is in the particular array of numbers.

**NONLINEAR RATIOS**

- Sales/Working Capital
- Fixed/Worth
- Debt/Worth

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LINEAR RATIOS

Current Ratio
Quick Ratio
Sales Receivables
Days’ Receivables
Cost of Sales/Inventory
Days’ Inventory
Cost of Sales/Payables
Days’ Payables
EBIT/Interest

Net Profit + Deprec, Depletion, Amort/Current Maturities Long-Term Debt
% Profits Before Taxes/Tangible Net Worth
% Profits Before Taxes/Total Assets
Sales/Net Fixed Assets
Sales/Total Assets
% Depreciation, Depletion, Amortization/Sales
% Officers’, Directors’, Owners’ Compensation/Sales

IMPORTANT NOTES ON RATIOS:

Turnover Ratios — For certain ratios (sales/receivables, cost of sales/inventory, cost of sales/payables) you will see two numbers, one in BOLD and one in regular type. These ratios are generally called turnover ratios. The number in BOLD represents the number of days and the number in regular type is the number of times. Please see the definition of sales/receivables on the following pages for a more complete description of the two types of calculations and what each means.

Inventory Presentations — Inventory presentations are based on fiscal year-end point-in-time balances, not averages. In addition, our data capture does not permit us to know what method of inventory accounting (LIFO or FIFO, for instance) was used.

The ratios contained in the Statement Studies are grouped into five principal categories: liquidity, coverage, leverage, operating, and specific expense items.
How to Get the Most Value from RMA’s Annual Statement Studies*:
Understanding the Ratios
(#2 in a series of 7 Guides)

For additional Annual Statement Studies Guides in this series, please visit http://landing.rmabhq.org/SSGuides.

For more information about RMA’s Annual Statement Studies: Financial Ratio Benchmarks or to purchase your copy today, please visit www.rmabhq.org/annual-statement-studies/.
About RMA
The Risk Management Association (RMA) is a not-for-profit, member-driven professional association serving the financial services industry. Its sole purpose is to advance the use of sound risk management principles in the financial services industry. RMA promotes an enterprise approach to risk management that focuses on credit risk, market risk, operational risk, securities lending, and regulatory issues.

Founded in 1914, RMA was originally called the Robert Morris Associates, named after American patriot Robert Morris, a signer of the Declaration of Independence. Morris, the principal financier of the Revolutionary War, helped establish our country’s banking system.

Today, RMA has approximately 2,500 institutional members. These include banks of all sizes as well as nonbank financial institutions. RMA is proud of the leadership role its member institutions take in the financial services industry. Relationship managers, credit officers, risk managers, and other financial services professionals in these organizations with responsibilities related to the risk management function represent these institutions within RMA. Known as RMA Associates, these 18,000 individuals are located throughout North America and financial centers in Europe, Australia, and Asia.

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Phone: 800-677-7621
Fax: 215-446-4101
Website: www.rmahq.org

RMA University
In today’s rapidly changing financial services industry, you need practical, day-to-day knowledge that will help you excel in your profession. RMA provides quality education to advance sound risk principles in the financial services industry. Traditional classroom training and online learning resources are available as open enrollments or in-bank training. Visit RMA’s event calendar at https://www.rmahq.org/eventcalendar.aspx to find out what’s available, or learn about RMA’s online resources at http://www.rmahq.org/rma-university-online/.

eStatement Studies
RMA’s eStatement StudiesSM is the only source of comparative data that comes directly from the financial statements of small and medium-size business customers of RMA’s member institutions. Round-the-clock online access gives you the ease and flexibility to use this wealth of information at your convenience. Visit http://www.rmahq.org/естatement-studies/

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