

<p style="text-align: center;">ACCT 102 – Fundamentals of Acct II Lecture Notes – Chapter 13: ANALYZING FINANCIAL STATEMENTS Schmidt</p>

BASICS OF ANALYSIS

Purpose of Analysis

Who analyzes financial statements?

1. Internal users, such as management, internal auditors, and consultants use financial statement analysis to improve company efficiency and effectiveness in providing products and services.
2. External users, such as stockbrokers and lenders, to make better and more informed investing and lending decisions.
3. Others, such as suppliers, to establish credit terms, or analyst services such as Standard & Poor's, in making buy-sell ratings on stocks and in setting credit ratings.

Information for Analysis

External users rely on the financial statements (the income statement, balance sheet, statement of retained earnings, statement cash flows, and the notes to the financial statements), for the data needed to perform financial analyses. Internal users receive special reports not available to those outside the company.

Standards for Comparison

Data derived from financial analysis is not useful unless compared to a benchmark.

Common benchmarks are:

1. Intracompany: Comparing data from the current year to the prior years for the company analyzed can indicate useful trends in performance.
2. Industry: Comparing financial analysis data from a company to its industry average lets us know how a company compares to its competitors.
3. Competitor: Comparing a company's financial data to one of its competitors is especially useful in making investing decisions.

Analysis Tools

The three most common financial statement analysis tools are:

1. Horizontal analysis
2. Vertical analysis
3. Ratio analysis

Horizontal analysis

Horizontal analysis compares changes in accounts across time. For example, assume Company A had the following data available:

	<u>2010</u>	<u>2009</u>
Net sales	\$110,000	\$100,000
Cost of goods sold	<u>60,000</u>	<u>51,000</u>
Gross profit	50,000	49,000

A horizontal analysis for this data would be:

	<u>2010</u>	<u>2009</u>	Dollar Change	Percent Change
Net sales	\$110,000	\$100,000	\$10,000	10.0% (1)
Cost of goods sold	<u>60,000</u>	<u>51,000</u>	<u>9,000</u>	17.6%
Gross profit	50,000	49,000	1,000	2.0%

The percent change is calculated as: Dollar change / older period amount = Percent change. ($\$10,000 / \$100,000 = 10\%$.)

What does this tell us? Even though sales increased by 10% from 2009 to 2010, gross profit only increased by 2%. Why? We don't know; financial analysis doesn't give us answers to questions, but does highlight questions we would direct to management.

Vertical analysis

Vertical analysis expresses each financial statement as a dollar amount and a percentage. The percentage is calculated on a base amount. For a balance sheet vertical analysis, the base amount is usually total assets. For an income statement vertical analysis, the base amount is usually revenues.

Using the above example, a vertical analysis would be:

	2010	2009	Common-Size Percents	
			2010	2009
Net sales	\$110,000	\$100,000	100.0%	100.0%
Cost of goods sold	<u>60,000</u>	<u>51,000</u>	54.5%	51.0%
Gross profit	50,000	49,000	45.5%	49.0%

The common-size percents for cost of goods sold are calculated as follows:

2010: $\$60,000 / \$110,000 = 54.5\%$

2009: $\$51,000 / \$100,000 = 51.0\%$

What does this tell us? Even though sales increased, gross profit, as a percentage of net sales decreased. Why? If you were a bank loan officer, and Company A was applying for a loan, this would be a good question to ask Company A's chief financial officer.

Ratio Analysis

Several ratios were covered in ACCT 101. This chapter organizes and applies them in a summary framework.

A ratio is simply a mathematical relationship between two or more items in the financial statements. Usually, their calculation involves division. The ratio result may be expressed as a percentage or a number, depending on the ratio.

There is a summary of ratios, and their formulas, in Exhibit 13.16 on page 565 of your current text. We will be working exercises and problems in class to review how these ratios are calculated and used. These ratios are included in four different areas, which are summarized as follows:

<i>Name</i>	<i>Description</i>	<i>Ratios included</i>
Liquidity and Efficiency Ratios	Liquidity refers to the amount of assets available to meet short-term cash requirements. Efficiency ratios measure the productivity of a company in using its assets to generate revenue or cash flow.	Current ratio; acid-test ratio; Accounts receivable turnover; Inventory turnover; Days' sales uncollected; Days' sales in inventory; and Total asset turnover.
Solvency Ratios	Solvency is the company's ability to cover long-term debt obligations over the long run.	Debt ratio; Equity ratio; Debt-to-equity ratio; and Times interest earned.
Profitability Ratios	These ratios measure the company's ability to use its assets to produce profits and positive cash flows.	Profit margin ratio; Gross margin ratio; Return on total assets; Return on common stockholders' equity; Book value per common share; and Basic earnings per share.
Market Prospects Ratios	Used primarily by stock analysts of publicly-traded companies, these ratios are used to measure investors' expectations for the company based on prior periods' results of operations.	Price-earnings ratio and Dividend yield.

We need to understand that ratio computations are worthless unless compared to the company's industry average; prior historical results; or directly to a competitor's ratios.