

Financial Statement Analysis

Chapter 15

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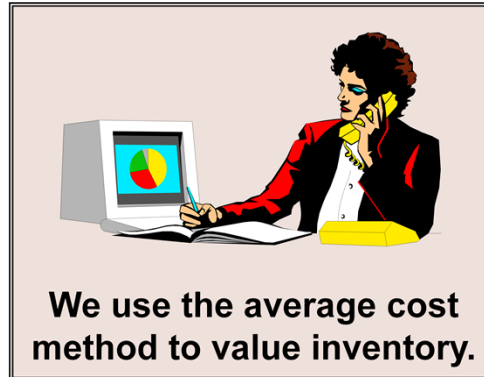
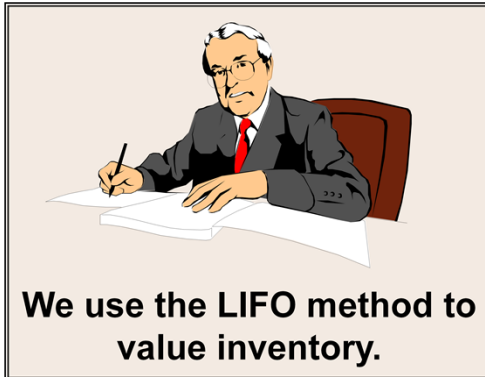
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Chapter 15: Financial Statement Analysis

Chapter 15 focuses on financial statement analysis, which is used to assess the financial health of a company. It includes examining trends in key financial data, comparing financial data across companies, and analyzing financial ratios.

Limitations of Financial Statement Analysis

Differences in accounting methods between companies sometimes make comparisons difficult.

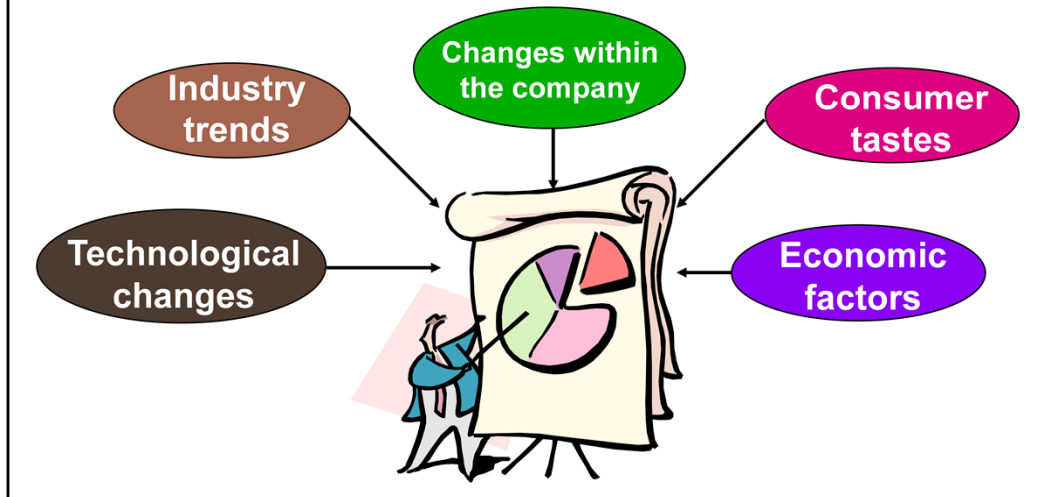


Differences in accounting methods between companies sometimes make it difficult to compare their financial data. For example, if one company values its inventory using the LIFO method and another uses the average cost method, then direct comparisons of financial data, such as inventory valuations and cost of goods sold, may be misleading.

Even with this limitation in mind, comparing financial ratios with other companies or industry averages can provide useful insights.

Limitations of Financial Statement Analysis

Analysts should look beyond the ratios.



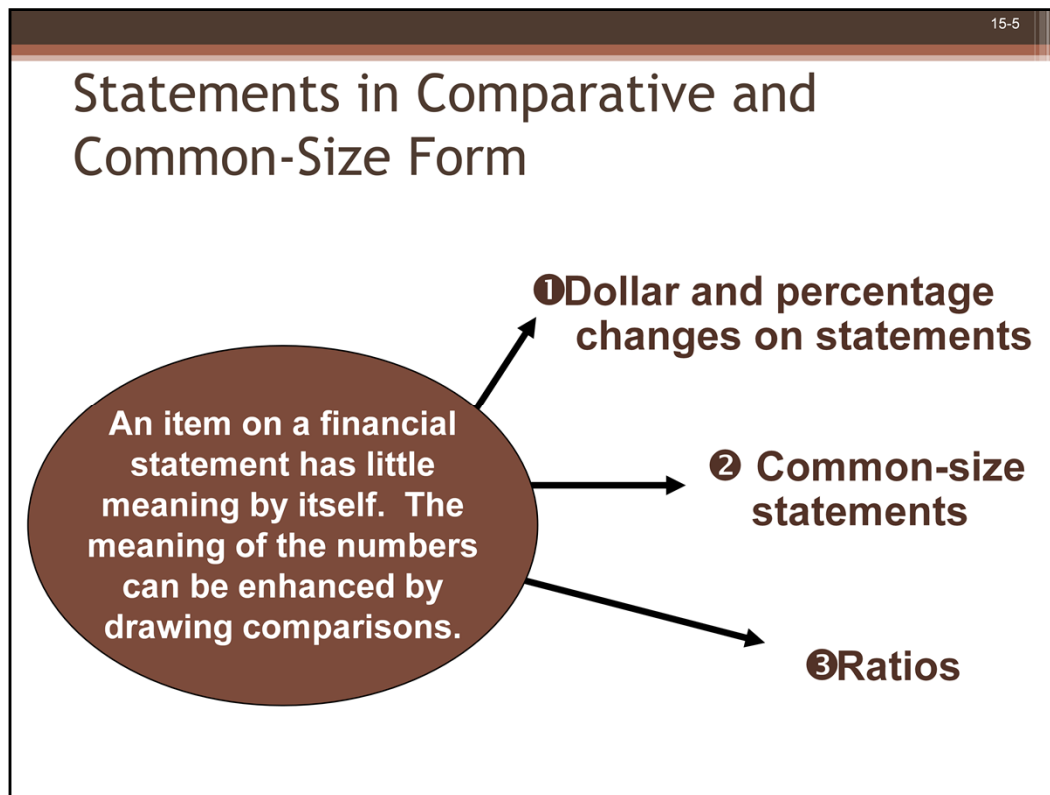
Ratios should not be viewed as an end, but rather as a starting point. They raise many questions and point to opportunities for further analysis, but they rarely answer questions by themselves.

In addition to ratios, other sources of data should also be considered, such as industry trends, technological changes, changes in consumer tastes, changes in broad economic factors, and changes within the company itself.

Learning Objective 1

**Prepare and interpret
financial statements in
comparative and
common-size form.**

Learning objective number 1 is to prepare and interpret financial statements in comparative and common-size form.



An item on a balance sheet or income statement has little meaning by itself. The meaning of the number can be enhanced by drawing comparisons. This chapter discusses three such means of enabling comparisons:

1. Dollar and percentage changes on statements (also known as horizontal analysis),
2. Common-size statements (also known as vertical analysis), and
3. Ratios.

Dollar and Percentage Changes on Statements

Horizontal analysis (or trend analysis) shows the changes between years in the financial data in both dollar and percentage form.



Horizontal analysis (also known as trend analysis) involves analyzing financial data over time.

Quantifying dollar changes over time serves to highlight the changes that are the most important economically.

Quantifying percentage changes over time serves to highlight the changes that are the most unusual.


Horizontal Analysis

The following slides illustrate a horizontal analysis of Clover Corporation's comparative balance sheets and comparative income statements for this year and last year.



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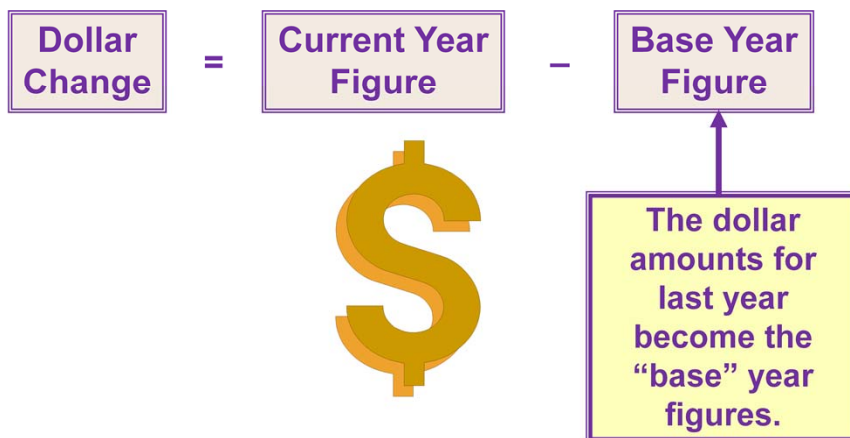
Horizontal Analysis

CLOVER CORPORATION		Comparative Balance Sheets			
		December 31			
		Increase (Decrease)			
	This Year	Last Year	Amount	%	
Assets					
Current assets:					
Cash	\$ 12,000	\$ 23,500			
Accounts receivable, net	60,000	40,000			
Inventory	80,000	100,000			
Prepaid expenses	3,000	1,200			
Total current assets	155,000	164,700			
Property and equipment:					
Land	40,000	40,000			
Buildings and equipment, net	120,000	85,000			
Total property and equipment	160,000	125,000			
Total assets	\$ 315,000	\$ 289,700			

Assume the comparative asset account balances from the balance sheets as shown.

Horizontal Analysis

Calculating Change in Dollar Amounts



The dollar change in account balances is calculated as the current year figure minus the base year figure. The dollar amounts for last year become the "base" year figures.

Horizontal Analysis

Calculating Change as a Percentage

$$\text{Percentage Change} = \frac{\text{Dollar Change}}{\text{Base Year Figure}} \times 100\%$$



The percentage change in account balances is calculated as dollar change divided by the base year figure times 100 percent.

Horizontal Analysis

		CLOVER CORPORATION Comparative Balance Sheets December 31		Increase (Decrease)	
				This Year	Last Year
Assets					
Current assets:					
Cash	\$ 12,000	\$ 23,500	\$ (11,500)	(48.9)	
Accounts receivable, net	60,000	40,000			
Inventory	80,000	100,000			
Prepaid expenses	3,000	1,200			
Total current assets					
Property and equipment					
Land	40,000	40,000			
Buildings and equipment					
Total property and equipment					
Total assets	\$ 315,000	\$ 289,700			

$$\$12,000 - \$23,500 = \$ (11,500)$$

$$(\$11,500 \div \$23,500) \times 100\% = (48.9\%)$$

The dollar and percentage changes in the cash account are computed as shown.

Horizontal Analysis

CLOVER CORPORATION Comparative Balance Sheets December 31				
Increase (Decrease)				
	This Year	Last Year	Amount	%
Assets				
Current assets:				
Cash	\$ 12,000	\$ 23,500	\$ (11,500)	(48.9)
Accounts receivable, net	60,000	40,000	20,000	50.0
Inventory	80,000	100,000	(20,000)	(20.0)
Prepaid expenses	3,000	1,200	1,800	150.0
Total current assets	155,000	164,700	(9,700)	(5.9)
Property and equipment:				
Land	40,000	40,000	-	0.0
Buildings and equipment, net	120,000	85,000	35,000	41.2
Total property and equipment	160,000	125,000	35,000	28.0
Total assets	\$ 315,000	\$ 289,700	\$ 25,300	8.7

The dollar and percentage changes for the remaining asset accounts are as shown. Can you calculate these numbers?


Horizontal Analysis



We could do this for the liabilities and stockholders' equity, but now let's look at the income statement accounts.


We could do this for the liabilities and stockholders' equity, but instead, let's look at the income statement.

Horizontal Analysis

CLOVER CORPORATION		Comparative Income Statements			
For the Years Ended December 31		Increase (Decrease)			
	This Year	Last Year	Amount	%	
Sales	\$ 520,000	\$ 480,000			
Cost of goods sold	360,000	315,000			
Gross margin	160,000	165,000			
Operating expenses	128,600	126,000			
Net operating income	31,400	39,000			
Interest expense	6,400	7,000			
Net income before taxes	25,000	32,000			
Less income taxes (30%)	7,500	9,600			
Net income	\$ 17,500	\$ 22,400			


Assume Clover has the comparative income statement amounts as shown.

Horizontal Analysis

CLOVER CORPORATION		Comparative Income Statements			
For the Years Ended December 31					
Increase (Decrease)					
	This Year	Last Year	Amount	%	
Sales	\$ 520,000	\$ 480,000	\$ 40,000	8.3	
Cost of goods sold	360,000	315,000	45,000	14.3	
Gross margin	160,000	165,000	(5,000)	(3.0)	
Operating expenses	128,600	126,000	2,600	2.1	
Net operating income	31,400	39,000	(7,600)	(19.5)	
Interest expense	6,400	7,000	(600)	(8.6)	
Net income before taxes	25,000	32,000	(7,000)	(21.9)	
Less income taxes (30%)	7,500	9,600	(2,100)	(21.9)	
Net income	\$ 17,500	\$ 22,400	\$ (4,900)	(21.9)	

The dollar and percentage changes for each account are as shown.

Horizontal Analysis

CLOVER CORPORATION		Comparative Income Statements For the Years Ended December 31			
Increase (Decrease)					
	This Year	Last Year	Amount	%	
Sales	\$ 520,000	\$ 480,000	\$ 40,000	8.3	
Cost of goods sold	360,000	315,000	45,000	14.3	
Gross margin	160,000	165,000	(5,000)	(3.0)	
Operating expenses			2,600	2.1	
Net operating income			(7,600)	(19.5)	
Interest expense			(600)	(8.6)	
Net income before taxes	25,000	32,000	(7,000)	(21.9)	
Less income taxes (30%)	7,500	9,600	(2,100)	(21.9)	
Net income	\$ 17,500	\$ 22,400	\$ (4,900)	(21.9)	

Sales increased by 8.3%, yet net income decreased by 21.9%.

Sales increased by 8.3%, yet net income decreased by 21.9%.

Horizontal Analysis

There were increases in both cost of goods sold (14.3%) and operating expenses (2.1%). These increased costs more than offset the increase in sales, yielding an overall decrease in net income.



				Change (Increase)	%
Sales	\$ 520,000	\$ 480,000	\$ 40,000		8.3
Cost of goods sold	360,000	315,000	45,000		14.3
Gross margin	160,000	165,000	(5,000)		(3.0)
Operating expenses	128,600	126,000	2,600		2.1
Net operating income	31,400	39,000	(7,600)		(19.5)
Interest expense	6,400	7,000	(600)		(8.6)
Net income before taxes	25,000	32,000	(7,000)		(21.9)
Less income taxes (30%)	7,500	9,600	(2,100)		(21.9)
Net income	\$ 17,500	\$ 22,400	\$ (4,900)		(21.9)

There were increases in cost of goods sold and operating expenses that offset the increase in sales. These increased costs more than offset the increase in sales, yielding an overall decrease in net income.