



“How Well Am I Doing?” Financial Statement Analysis

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After studying you should be able to:

- Prepare and interpret financial statements in comparative and common-size form.
- Compute and interpret financial ratios that would be most useful to a common stockholder.
- Compute and interpret financial ratios that would be most useful to a short-term creditor.
- Compute and interpret financial ratios that would be most useful to a long-term creditor.

Limitations of Financial Statement Analysis

Differences in accounting methods between companies sometimes make comparisons difficult.

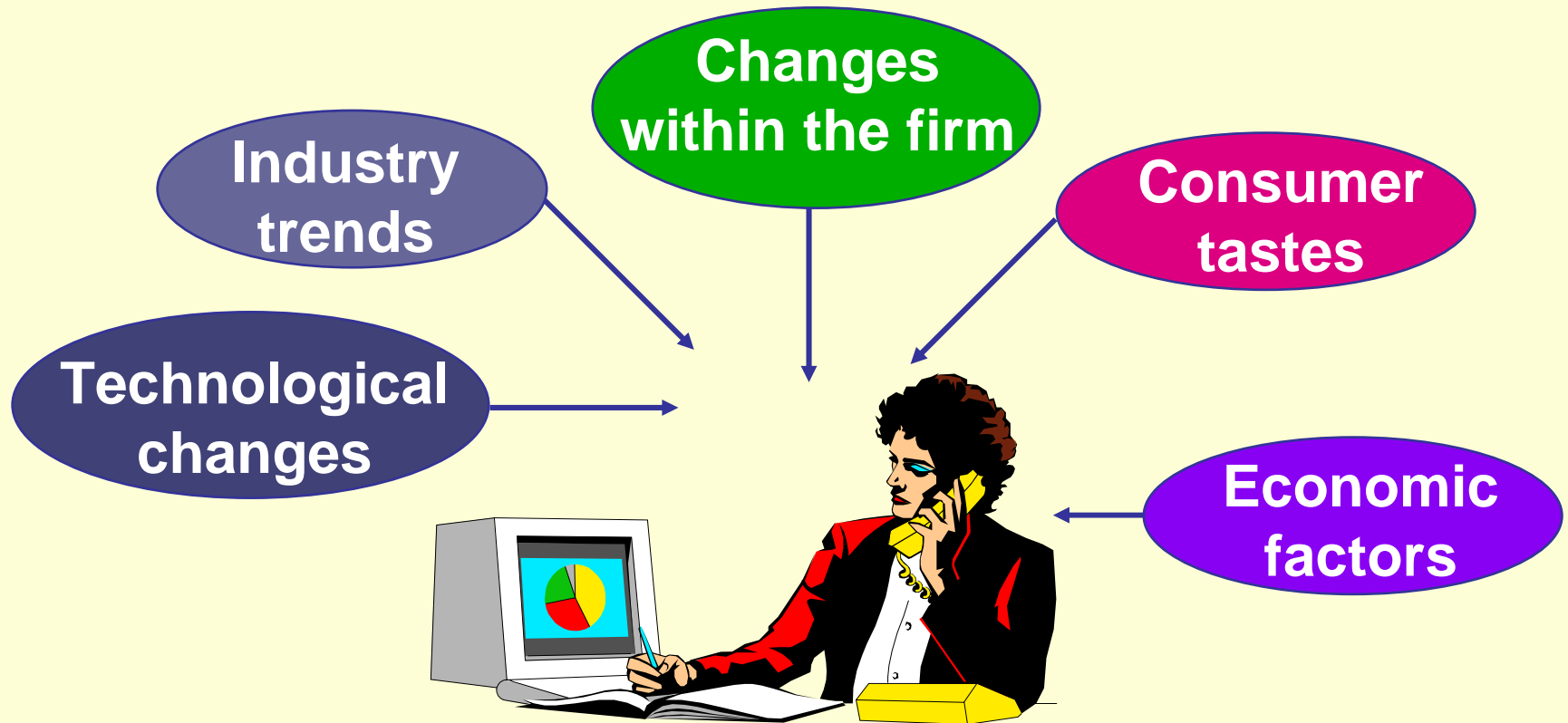


We use the LIFO method to value inventory.



We use the FIFO method to value inventory.

Limitations of Financial Statement Analysis



Analysts should look beyond the ratios.

Statements in Comparative and Common-Size Form

Analytical techniques used to examine relationships among financial statement items

① Dollar and percentage changes on statements

② Common-size statements

③ Ratios

Dollar and Percentage Changes on Statements

Comparing statements underscores movements and trends and ^{subraya} may provide valuable clues about what to expect in the _{pistas} future.

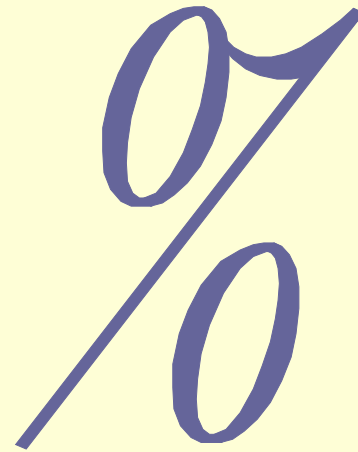
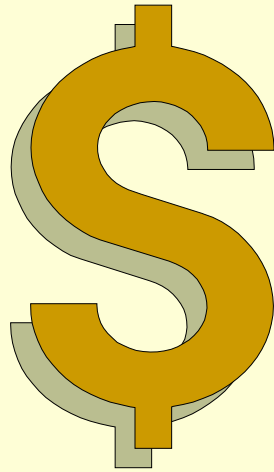
Horizontal
analysis



Trend
analysis

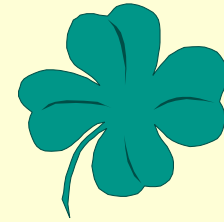
Horizontal Analysis

Horizontal analysis shows the changes between years in the financial data in both **dollar** and **percentage** form.



Horizontal Analysis

Example



The following slides illustrate a horizontal analysis of Clover Corporation's December 31, 2004 and 2003 comparative balance sheets and comparative income statements.

Horizontal Analysis

CLOVER CORPORATION
Comparative Balance Sheets
December 31

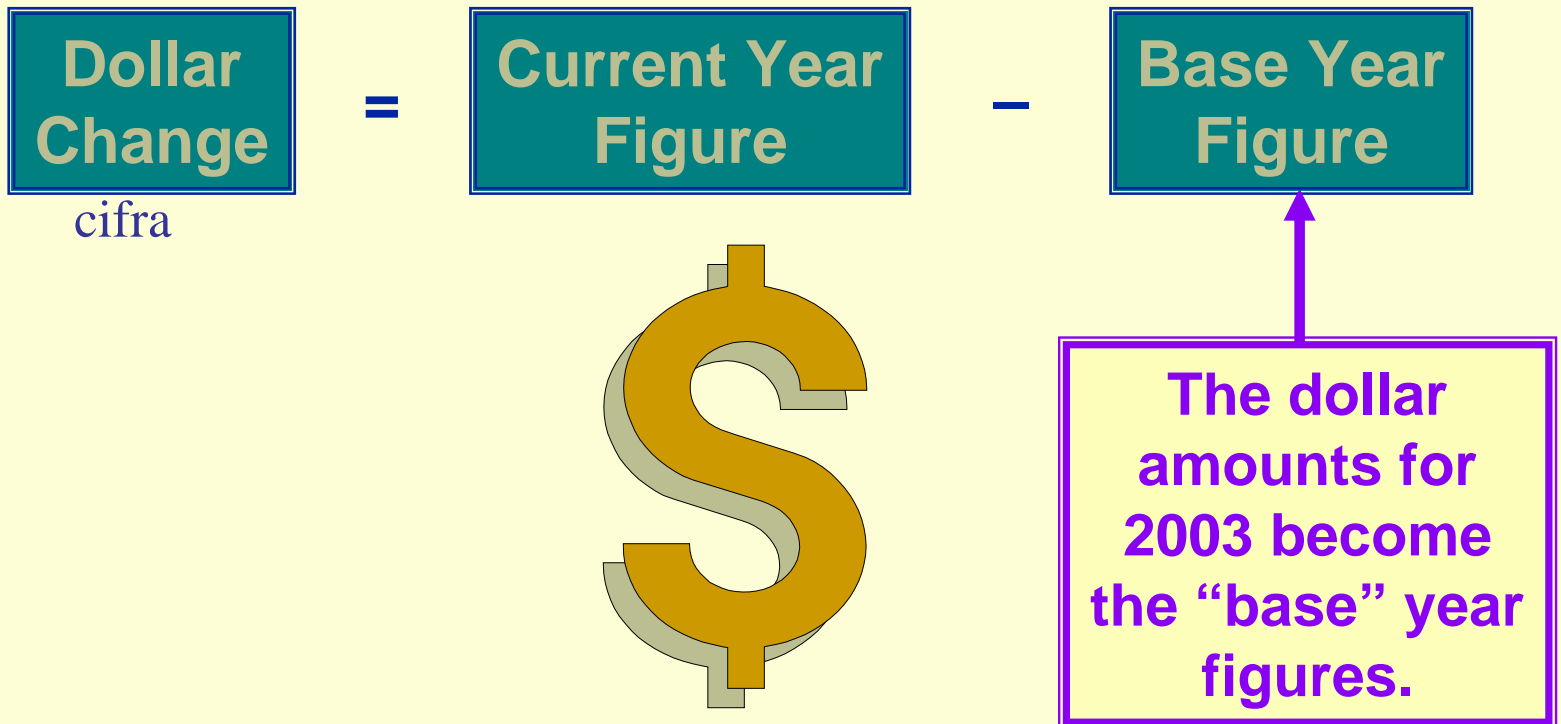


Increase (Decrease)

	2004	2003	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		

Horizontal Analysis

Calculating Change in Dollar Amounts



Horizontal Analysis

Calculating Change as a Percentage

Percentage
Change

=

Dollar Change
Base Year Figure

×

100%

%

Horizontal Analysis

CLOVER CORPORATION Comparative Balance Sheets December 31



		Increase (Decrease)		
	2004	2003	Amount	%
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				
\$12,000 – \$23,500 = \$(11,500)				
Property and equipment:				
Land	40,000	40,000		
Buildings and equipment	160,000	125,000		
Total property and equipment				
(\$11,500 ÷ \$23,500) × 100% = 48.9%				
Total assets	\$ 315,000	\$ 289,700		

Horizontal Analysis

CLOVER CORPORATION Comparative Balance Sheets December 31



			Increase (Decrease)	
	2004	2003	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

Horizontal Analysis



We could do this for the **liabilities** ^{pasivos}
& **stockholders' equity**, but now
^{Capital contable}
let's look at the **income statement**
accounts.

Horizontal Analysis

CLOVER CORPORATION Comparative Income Statements For the Years Ended December 31



	Increase (Decrease)			
	2004	2003	Amount	%
Net 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)

Horizontal Analysis

CLOVER CORPORATION Comparative Income Statements For the Years Ended December 31



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	2004	2003	Amount	%
Net 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	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)

**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.



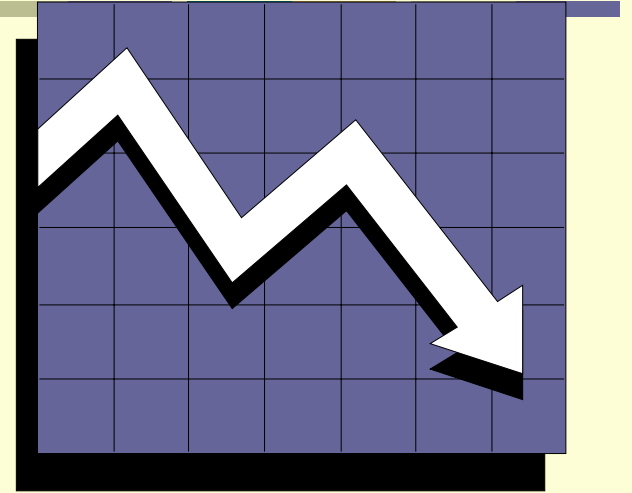
Change
(Increase)

Amount %

Net 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)
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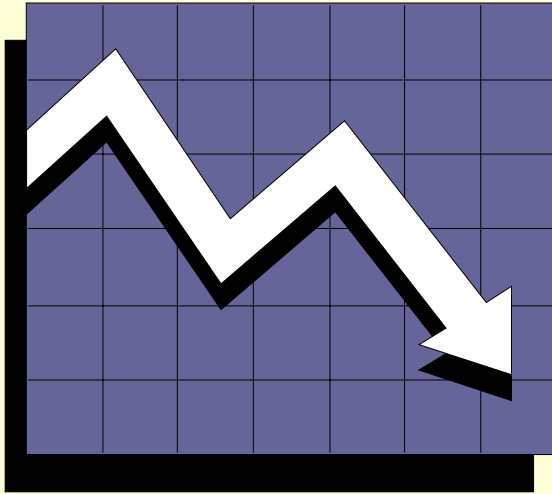
Trend Percentages

Trend percentages state several years' financial data in terms of a base year, which equals 100 percent.



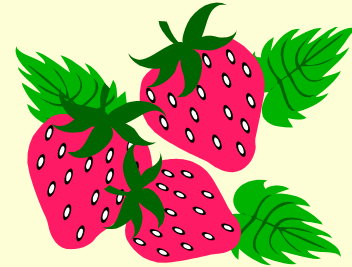
Trend Analysis

$$\text{Trend Percentage} = \frac{\text{Current Year Amount}}{\text{Base Year Amount}} \times 100\%$$



Trend Analysis

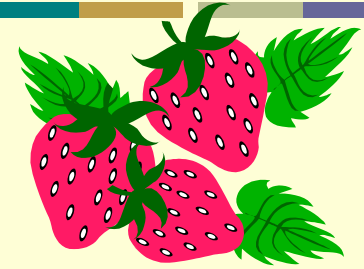
Example



Look at the income information for Berry Products for the years 2000 through 2004. We will do a trend analysis on these amounts to see what we can learn about the company.

Trend Analysis

Berry Products Income Information For the Years Ended December 31

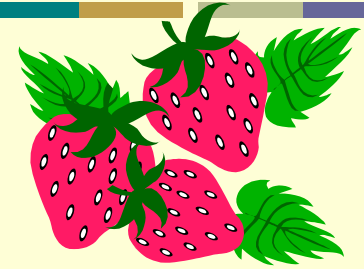


Item	Year				
	2004	2003	2002	2001	2000
Sales	\$ 400,000	\$ 355,000	\$ 320,000	\$ 290,000	\$ 275,000
Cost of goods sold	285,000	250,000	225,000	198,000	190,000
Gross margin	115,000	105,000	95,000	92,000	85,000

**The base
year is 2000, and its amounts
will equal 100%.**

Trend Analysis

Berry Products Income Information For the Years Ended



Item	Year				
	2004	2003	2002	2001	2000
Sales				105%	100%
Cost of goods sold				104%	100%
Gross margin				108%	100%

2001 Amount ÷ 2000 Amount × 100%

$$(\$290,000 \div \$275,000) \times 100\% = 105\%$$

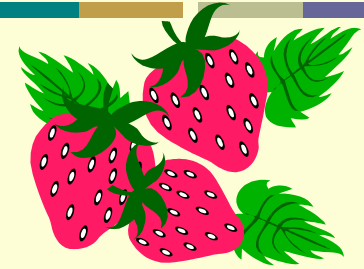
$$(\$198,000 \div \$190,000) \times 100\% = 104\%$$

$$(\$92,000 \div \$85,000) \times 100\% = 108\%$$

2001	2000
\$290,000	\$275,000
198,000	190,000
92,000	85,000

Trend Analysis

Berry Products Income Information For the Years Ended December 31

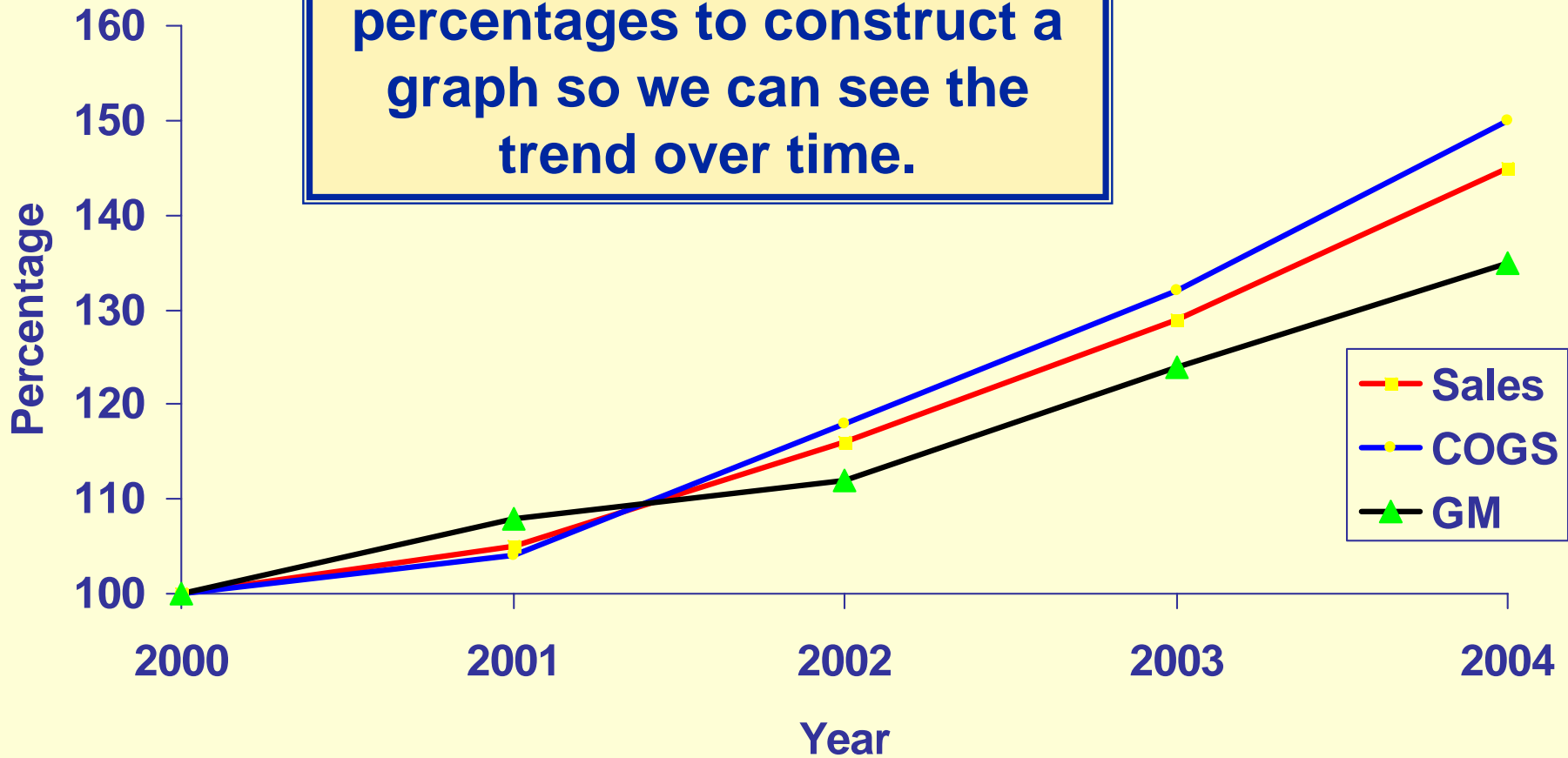


Item	Year				
	2004	2003	2002	2001	2000
Sales	145%	129%	116%	105%	100%
Cost of goods sold	150%	132%	118%	104%	100%
Gross margin	135%	124%	112%	108%	100%

By analyzing the trends for Berry Products, we can see that cost of goods sold is increasing faster than sales, which is slowing the increase in gross margin.

Trend Analysis

We can use the trend percentages to construct a graph so we can see the trend over time.

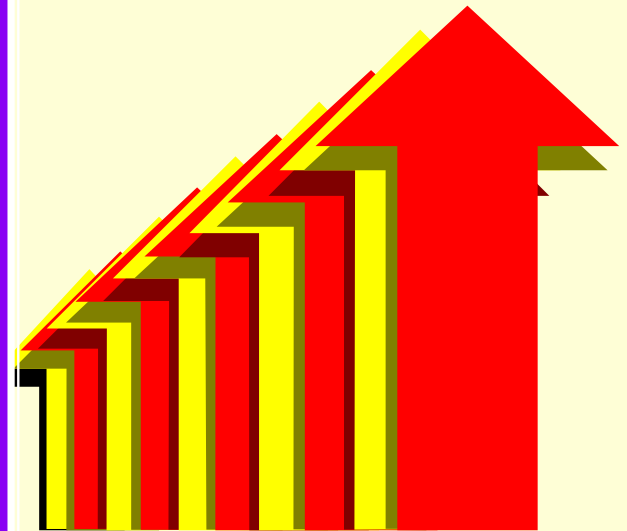




MOVIE

Common-Size Statements

Common-size statements use percentages to express the relationship of individual components to a total within a **single** period. This is also known as **vertical analysis**.



Common-Size Statements

Example



Let's take another look at the information from the comparative income statements of Clover Corporation for 2004 and 2003.

This time let's prepare common-size statements.

Common-Size Statements

CLOVER CORPORATION Comparative Income Statements For the Years Ended December 31



		Common-Size Percentages		
	2004	2003	2004	2003
Net sales	\$ 520,000	\$ 480,000	100.0	100.0
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		

Net sales is usually the base and is expressed as 100%.

Common-Size Statements

CLOVER CORPORATION Comparative Income Statements For the Years Ended December 31



		Common-Size Percentages		
	2004	2003	2004	2003
Net sales	\$520,000	\$480,000	100.0	100.0
Cost of goods sold	360,000	315,000	69.2	65.6
Gross margin	160,000	165,000		
Operating income	100,000	100,000		
Net income before taxes	75,000	75,000		
Less income taxes	(25,000)	(25,000)		
Net income	50,000	50,000		

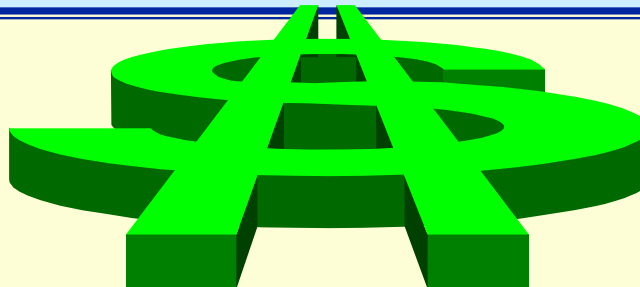
2004 Cost ÷ 2004 Sales × 100%
 (\$360,000 ÷ \$520,000) × 100% = 69.2%

2003 Cost ÷ 2003 Sales × 100%
 (\$315,000 ÷ \$480,000) × 100% = 65.6%

Gross Margin Percentage

$$\text{Gross Margin Percentage} = \frac{\text{Gross Margin}}{\text{Sales}}$$

This measure indicates how much of each sales dollar is left after deducting the cost of goods sold to cover expenses and a profit.



Common-Size Statements

CLOVER CORPORATION Comparative Income Statements For the Years Ended December 31



What conclusions can we draw?

Common-Size Percentages

	2004	2003	2004	2003
Net sales	\$ 520,000	\$ 480,000	↓ 100.0	↓ 100.0
Cost of goods sold	360,000	315,000	↓ 69.2	↓ 65.6
Gross margin	160,000	165,000	30.8	34.4
Operating expenses	128,600	126,000	24.8	26.2
Net operating income	31,400	39,000	6.0	8.2
Interest expense	6,400	7,000	1.2	1.5
Net income before taxes	25,000	32,000	4.8	6.7
Less income taxes (30%)	7,500	9,600	1.4	2.0
Net income	\$ 17,500	\$ 22,400	↓ 3.4	↓ 4.7

Quick Check ✓

Which of the following statements describes horizontal analysis?

- a. A statement that shows items appearing on it in percentage and dollar form.
- b. A side-by-side comparison of two or more years' financial statements.
- c. A comparison of the account balances on the current year's financial statements.
- d. None of the above.

Quick Check ✓

Which of the following statements describes horizontal analysis?

a. A statement that shows items appearing on it in percentage and dollar form.

b. A side-by-side comparison of two or more years' financial statements.

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

**Now, let's look at
Norton
Corporation's
2004 and 2003
financial
statements.**



NORTON CORPORATION

Balance Sheets

December 31

	2004	2003
Assets		
Current assets:		
Cash	\$ 30,000	\$ 20,000
Accounts receivable, net	20,000	17,000
Inventory	12,000	10,000
Prepaid expenses	3,000	2,000
Total current assets	65,000	49,000
Property and equipment:		
Land	165,000	123,000
Buildings and equipment, net	116,390	128,000
Total property and equipment	281,390	251,000
Total assets	\$ 346,390	\$ 300,000

NORTON CORPORATION
Balance Sheets
December 31

	2004	2003
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 39,000	\$ 40,000
Notes payable, short-term	3,000	2,000
Total current liabilities	42,000	42,000
Long-term liabilities:		
Notes payable, long-term	70,000	78,000
Total liabilities	112,000	120,000
Stockholders' equity:		
Common stock, \$1 par value	27,400	17,000
Additional paid-in capital	158,100	113,000
Total paid-in capital	185,500	130,000
Retained earnings	48,890	50,000
Total stockholders' equity	234,390	180,000
Total liabilities and stockholders' equity	\$ 346,390	\$ 300,000

NORTON CORPORATION
Income Statements
For the Years Ended December 31

	2004	2003
Net sales	\$ 494,000	\$ 450,000
Cost of goods sold	140,000	127,000
Gross margin	354,000	323,000
Operating expenses	270,000	249,000
Net operating income	84,000	74,000
Interest expense	7,300	8,000
Net income before taxes	76,700	66,000
Less income taxes (30%)	23,010	19,800
Net income	\$ 53,690	\$ 46,200

**Now, let's calculate
some ratios based
on Norton
Corporation's
financial
statements.**



ESTADOS FINANCIEROS

