

## A CASE

### Dana Dairy Products Key Ratio

	Industry Average	Actual 2001	Actual 2002
Current Ratio	1.3	1.0	
Quick Ratio	0.8	0.75	
Average collection Period	23 days	30 days	
Inventory Turnover	21.7	19	
Debt Ratio	64.7%	50%	
Times Interest Earned	4.8	5.5	
Gross Profit Margin	13.6%	12.0%	
Net Profit Margin	1.0%	0.5%	
Return on total assets	2.9%	2.0%	
Return on Equity	8.2%	4.0%	

### Income Statement Dana Dairy Products For the Year Ended December 31, 2002

Sales Revenue	\$100,000
Less: Cost of Goods Sold	87,000
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Gross Profits	\$ 13,000
Less: Operating Expenses	11,000
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Operating Profits	\$ 2,000
Less: Interest Expense	500
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Net Profits Before Taxes	\$ 1,500
Less: Taxes (40%)	600
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Net Profits After Taxes	\$ 900

Balance Sheet  
Dana Dairy Products  
December 31, 2002

ASSETS

Cash		\$ 1,000
Accounts Receivable		8,900
Inventories		4,350
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Total Current Assets		\$14,250
Gross Fixed Assets	\$35,000	
Less: Accumulated Depreciation	13,250	
Net Fixed Assets		21,750
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Total Assets		\$36,000

Liabilities & Stockholders' Equity

Accounts Payable		\$ 9,000
Accruals		6,675
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Total Current Liabilities		\$15,675
Long-term Debts		4,125
		-----
Total Liabilities		\$19,800
Common Stock		1,000
Retained Earnings		15,200
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Total Stockholders' Equity		\$16,200
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Total Liab. & S.E.		\$36,000

Qs:

1. The current ratio for Dana Dairy Products in 2002 is \_\_\_\_\_
2. Since 2001, the liquidity of Dana Dairy Products \_\_\_\_\_.
3. The net working capital for Dana Dairy Products in 2002 is \_\_\_\_\_.
4. The inventory turnover for Dana Dairy Products in 2002 is \_\_\_\_\_.
5. The inventory management at Dana Dairy Products \_\_\_\_\_ since 2001.
6. The average collection period for Dana Dairy Products in 2002 is:
7. If Dana Dairy Products has credit terms which specify that accounts receivable should be paid in 25 days, the average collection period \_\_\_\_\_ since 2001.
8. Dana Dairy Products has a \_\_\_\_\_ degree of financial leverage than the industry standard, resulting in \_\_\_\_\_.
9. The debt ratio for Dana Dairy Products in 2002 is
10. Dana Dairy Products' gross profit margin is inferior to the industry standard. This may have resulted from
11. The gross profit margin and net profit margin for Dana Dairy Products in 2002 are
12. The return on total assets for Dana Dairy Products for 2002 is
13. The return on equity for Dana Dairy Products for 2002 is
14. Using the modified DuPont formula allows the analyst to break Dana Dairy Products return on equity into 3 components: the net profit margin, the total asset turnover, and a measure of leverage (the financial leverage multiplier). Which of the following mathematical expressions represents the modified DuPont formula relative to Dana Dairy Products' 2002 performance?
15. As the financial leverage multiplier increases this may result in

Answers:

1. 0.91
2. has deteriorated
3. -\$1,425
4. 20
5. has improved slightly
6. 32 days.
7. has deteriorated
8. lower; lower return on equity
9. 55 percent.
10. the high cost of goods sold.
11. 13 percent and 1.5 percent, respectively.
12. 2.5 percent.
13. 5.6 percent.
14.  $5.6(\text{ROE}) = 2.5(\text{ROA}) \times 2.24(\text{Financial leverage multiplier})$
15. a decrease in the net profit margin and return on investment, due to the increase in interest expense as debt increases.