

# Financial Statement Analysis

You are an underwriter for a regional development bank and you evaluate loan applications. The bank recently adopted a policy allowing use of AI to speed up the loan review process. You must review AI analyses and correct any errors (hallucinations) before making a loan recommendation. Following is an exchange between you (underwriter) and the AI chatbot.

**Underwriter:** A manufacturing firm has applied for a loan from the bank. After reviewing its financial statements, the following ratios are computed for the current year and prior year. Interpret the year-to-year changes in each ratio.

Ratio	Prior Year	Current Year
Current Ratio	1.4	1.9
Acid-Test Ratio	0.7	1.1
Days' Sales in Inventory	65 days	68 days
Profit Margin	14.5%	20.6%

**AI Chatbot:** Interpreting these ratios sheds light on changes in the firm's liquidity, efficiency, and profitability.

- The increase in the **Current Ratio** suggests that the company is better able to pay its current debts.
- The increase in the **Acid-Test Ratio** indicates that the company has fewer "quick" assets to pay its debts and continue to operate.
- The increase in **Days' Sales in Inventory** shows that the company is having a more difficult time selling its inventory.
- The increase in **Profit Margin** suggests the firm is earning more net income from each dollar of sales.

Overall, the firm demonstrates unfavorable changes from the increase in Acid-Test Ratio and decrease to Days' Sales in Inventory. In addition, the increases in Current Ratio and Profit Margin should be viewed as favorable.

## Question 1

We discover a hallucination in the AI response. How do we correct it?

- a. The increase in Current Ratio should be interpreted as an unfavorable change.
- b. The increase in Acid-Test Ratio should be interpreted as a favorable change.
- c. The increase in Days' Sales in Inventory should be interpreted as an favorable change.
- d. The increase in Profit Margin should be interpreted as an unfavorable change.
- e. There are no errors (hallucinations) in the AI response.

## Question 2

Would you recommend loaning additional money to this company if you require favorable changes for each of the four ratios analyzed?

## Question 3

If you wanted to continue your analysis of this company by examining its capital structure, which of the following ratios could you consider?

- a. Gross Margin Ratio
- b. Equity Ratio
- c. Total Asset Turnover
- d. Price-Earnings Ratio
- e. Accounts Receivable Turnover