

# What is Advanced Financial Ratio Analysis?

## Worksheet

Advanced ratio analysis decomposes key metrics like ROE using the DuPont formula:  $ROE = \text{Net Profit Margin} \times \text{Asset Turnover} \times \text{Equity Multiplier}$ , revealing whether performance is driven by profitability, efficiency, or leverage.

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}}$$

## Questions

1. In the DuPont formula, ROE equals NPM AT ?

- A) Current ratio
- B) Equity multiplier
- C) Quick ratio
- D) Inventory turnover

2.  $NPM = 6\%$ ,  $AT = 2$ ,  $EM = 3$ . What is ROE?

- A) 11%
- B) 36%
- C) 18%
- D) 6%

3. A rising equity multiplier with flat NPM and AT means ROE is rising mainly due to:

- A) Better efficiency
- B) More leverage
- C) Higher margins
- D) Lower taxes

4. Which ratio measures how efficiently assets generate revenue?

- A) Equity multiplier
- B) Net profit margin
- C) Asset turnover
- D) Current ratio

5. A company has net profit margin 8%, asset turnover 1.5, and equity multiplier 2.5. Find ROE using DuPont analysis.

6. Company A has ROE 20% driven by NPM 5%, AT 2.0, EM 2.0. Company B has ROE 20% driven by NPM 15%, AT 0.9, EM 1.5. Which company relies more on leverage?

7. A firm's revenue grew from \$1,800,000 to \$1,980,000 while total assets stayed flat at \$2,000,000. Find the new asset turnover.

8. Define: What does the DuPont formula decompose?

9. Define: What does a rising equity multiplier indicate?

10. Define: What is asset turnover a measure of?

## Answer Key

1. B) Equity multiplier - ROE = Net Profit Margin Asset Turnover Equity Multiplier.
2. B) 36% - ROE =  $6 \times 2 \times 3 = 36\%$ .
3. B) More leverage - The equity multiplier captures leverage; its rise increases ROE via more debt financing.
4. C) Asset turnover - Asset turnover = Revenue Total Assets, an efficiency measure.
5. ROE = NPM AT EM ROE =  $8\% \times 1.5 \times 2.5$  ROE = 30%
6. Compare equity multipliers: Company A EM = 2.0 vs Company B EM = 1.5 Higher EM signals more assets financed by debt relative to equity Company A's ROE relies more on leverage than Company B's, which relies more on margin
7. Asset turnover = Revenue Total Assets New asset turnover =  $\frac{1,980,000}{2,000,000}$  Asset turnover = 0.99
8. Return on Equity (ROE) into net profit margin, asset turnover, and equity multiplier.
9. The company is using more debt (financial leverage) relative to equity to finance assets.
10. How efficiently a company generates revenue from its total assets.

### **Bounlu**

All cards, step-by-step solutions and an AI tutor are in the Notek app.  
Promy turns exam dates into automatic reminders.