

Financial Ratios

Formula, Example, Explanation



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Liquidity Ratios



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Liquidity Ratios

1. Current Ratio:

- Formula: $\text{Current Assets} / \text{Current Liabilities}$
- Example: Current assets of \$200,000 and current liabilities of \$100,000 result in a current ratio of 2:1.
- Explanation: Indicates a company's ability to cover short-term obligations. A ratio above 1 suggests good liquidity.

2. Quick Ratio (Acid-Test Ratio):

- Formula: $(\text{Current Assets} - \text{Inventory}) / \text{Current Liabilities}$
- Example: Quick assets of \$150,000 and current liabilities of \$75,000 result in a quick ratio of 2:1.
- Explanation: Similar to the current ratio but excludes inventory, providing a more conservative measure of liquidity.

3. Cash Ratio:

- Formula: $\text{Cash and Cash Equivalents} / \text{Current Liabilities}$
- Example: \$50,000 in cash and \$25,000 in current liabilities result in a cash ratio of 2:1.
- Explanation: Focuses solely on the most liquid assets, providing a stringent measure of short-term liquidity.



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Profitability Ratios



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Profitability Ratios

4. Net Profit Margin:

- Formula: $\text{Net Profit} / \text{Revenue}$
- Example: Net profit of \$50,000 and revenue of \$500,000 result in a net profit margin of 10%.
- Explanation: Measures the percentage of profit relative to revenue. Higher margins indicate better profitability.

5. Return on Assets (ROA):

- Formula: $\text{Net Income} / \text{Average Total Assets}$
- Example: Net income of \$80,000 and average total assets of \$400,000 result in an ROA of 20%.
- Explanation: Assesses how efficiently a company utilizes its assets to generate profit.

6. Return on Equity (ROE):

- Formula: $\text{Net Income} / \text{Average Shareholders' Equity}$
- Example: Net income of \$60,000 and average equity of \$300,000 result in an ROE of 20%.
- Explanation: Evaluates the returns generated for shareholders' equity. A higher ROE is typically favorable.



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Solvency Ratios



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Solvency Ratios

7. Debt to Equity Ratio:

- Formula: Total Debt / Shareholders' Equity
- Example: Total debt of \$200,000 and equity of \$300,000 result in a debt to equity ratio of 0.67.
- Explanation: Measures the proportion of debt relative to equity. Lower ratios indicate lower financial risk.

8. Interest Coverage Ratio:

- Formula: Earnings Before Interest and Taxes (EBIT) / Interest Expense
- Example: EBIT of \$120,000 and interest expense of \$20,000 result in an interest coverage ratio of 6.
- Explanation: Assesses a company's ability to cover interest payments with its earnings.



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Efficiency Ratios



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Efficiency Ratios

9. Inventory Turnover:

- Formula: $\text{Cost of Goods Sold} / \text{Average Inventory}$
- Example: COGS of \$200,000 and average inventory of \$40,000 result in an inventory turnover of 5.
- Explanation: Indicates how quickly a company sells and replaces its inventory.

10. Receivables Turnover:

- Formula: $\text{Revenue} / \text{Average Accounts Receivable}$
- Example: Revenue of \$600,000 and average accounts receivable of \$80,000 result in a receivables turnover of 7.5.
- Explanation: Measures how efficiently a company collects cash from its customers.

11. Asset Turnover:

- Formula: $\text{Revenue} / \text{Average Total Assets}$
- Example: Revenue of \$1,000,000 and average total assets of \$500,000 result in an asset turnover of 2.
- Explanation: Assesses how efficiently a company uses its assets to generate revenue.



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Valuation Ratios



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Valuation Ratios

12. Price-to-Earnings (P/E) Ratio:

- Formula: $\text{Market Price per Share} / \text{Earnings per Share (EPS)}$
- Example: If the market price is \$40 and EPS is \$5, the P/E ratio is 8.
- Explanation: Compares the market price of a share to its earnings. A higher P/E may indicate expectations for future growth.

13. Price-to-Book (P/B) Ratio:

- Formula: $\text{Market Price per Share} / \text{Book Value per Share}$
- Example: With a market price of \$60 and book value of \$20, the P/B ratio is 3.
- Explanation: Measures the market's valuation of a company relative to its book value. A ratio above 1 can suggest overvaluation.

14. Dividend Yield:

- Formula: $\text{Dividends per Share} / \text{Market Price per Share}$
- Example: If dividends are \$2 per share and the market price is \$50, the yield is 4%.
- Explanation: Represents the annual dividend income relative to the market price of a share.



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Return Ratios



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Return Ratios

15. Return on Capital Employed (ROCE):

- Formula: $\text{Earnings Before Interest and Taxes (EBIT)} / \text{Capital Employed}$
- Example: If EBIT is \$100,000 and capital employed is \$500,000, ROCE is 20%.
- Explanation: Evaluates the efficiency of capital utilization in generating returns.

16. Earnings Growth Rate:

- Formula: $(\text{Current Year EPS} - \text{Last Year EPS}) / \text{Last Year EPS}$
- Example: If last year's EPS was \$4 and this year's is \$5, the growth rate is 25%.
- Explanation: Indicates the percentage change in earnings from one period to another.

17. Sales Growth Rate:

- Formula: $(\text{Current Year Sales} - \text{Last Year Sales}) / \text{Last Year Sales}$
- Example: If last year's sales were \$800,000 and this year's are \$1,000,000, the growth rate is 25%.
- Explanation: Measures the percentage change in sales from one period to another.



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Coverage Ratios



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Coverage Ratios

18. Fixed Charge Coverage Ratio:

- Formula: $(\text{EBIT} + \text{Lease Payments}) / (\text{Interest} + \text{Lease Payments})$
- Example: With EBIT of \$120,000, lease payments of \$10,000, interest of \$15,000, and lease payments of \$10,000, the ratio is 7.
- Explanation: Evaluates a company's ability to cover fixed charges with its earnings.

19. Debt Service Coverage Ratio:

- Formula: $\text{Net Operating Income} / \text{Debt Service}$
- Example: With NOI of \$150,000 and debt service of \$100,000, the ratio is 1.5.
- Explanation: Measures a company's ability to meet its debt obligations.



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Growth Ratios



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Growth Ratios

20. Dividend Growth Rate:

- Formula: $(\text{Current Year Dividends} - \text{Last Year Dividends}) / \text{Last Year Dividends}$
- Example: If last year's dividends were \$1 and this year's are \$1.20, the growth rate is 20%.
- Explanation: Indicates the percentage change in dividends from one period to another.

21. Retention Ratio:

- Formula: $(\text{Net Income} - \text{Dividends}) / \text{Net Income}$
- Example: If net income is \$100,000 and dividends are \$20,000, the retention ratio is 80%.
- Explanation: Measures the percentage of earnings retained by the company for reinvestment.



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Market Ratios



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Market Ratios

22. Market Capitalization:

- Formula: $\text{Number of Shares Outstanding} * \text{Market Price per Share}$
- Example: With 1 million shares and a market price of \$50, the market cap is \$50 million.
- Explanation: Represents the total market value of a company's outstanding shares.

23. Earnings per Share (EPS):

- Formula: $\text{Net Income} / \text{Weighted Average Shares Outstanding}$
- Example: If net income is \$200,000 and weighted average shares outstanding are 50,000, EPS is \$4.
- Explanation: Represents the earnings attributable to each outstanding share.

24. Dividends per Share:

- Formula: $\text{Total Dividends Paid} / \text{Number of Shares Outstanding}$
- Example: If total dividends are \$50,000 and shares outstanding are 10,000, dividends per share are \$5.
- Explanation: Represents the dividends distributed per outstanding share.



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Payout Ratios



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Payout Ratios

25. Dividend Payout Ratio:

- Formula: $\text{Dividends per Share} / \text{Earnings per Share}$
- Example: If dividends per share are \$2 and EPS is \$4, the payout ratio is 50%.
- Explanation: Measures the percentage of earnings paid out as dividends.

26. Retention Ratio:

- Formula: $(\text{Net Income} - \text{Dividends}) / \text{Net Income}$
- Example: If net income is \$100,000 and dividends are \$20,000, the retention ratio is 80%.
- Explanation: Measures the percentage of earnings retained by the company for reinvestment.



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Efficiency and Turnover Ratios



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Efficiency and Turnover Ratios

27. Fixed Asset Turnover Ratio:

- Formula: $\text{Revenue} / \text{Average Fixed Assets}$
- Example: If revenue is \$1,000,000 and average fixed assets are \$200,000, the turnover is 5.
- Explanation: Measures how efficiently fixed assets generate revenue.

28. Working Capital Turnover Ratio:

- Formula: $\text{Revenue} / \text{Average Working Capital}$
- Example: If revenue is \$800,000 and average working capital is \$100,000, the turnover is 8.
- Explanation: Assesses the efficiency of working capital in generating revenue.



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