

I'm not a bot



To accumulate a desired future value. Example: To accumulate \$50,000 in 5 years at 6% annual rate: PMT = \$743 per year. Years Double = 72 / (annual growth rate in %). Explanation: Estimates the number of years required to double an investment. Example: At a 9% growth rate: NPV = 2 [CF / (1 + r)^n] - Initial Investment Explanation: Sums the present values of future cash flows then subtracts the initial cost. Example: For cash flows of \$3,000, \$4,000, and \$5,000 over 3 years at 10%, with an investment of \$10,000, NPV = (3000/1.1 + 4000/1.21 + 5000/1.331) - 10,000 = \$644. Explanation: The discount rate that makes the NPV equal to zero. Example: For cash flows of \$1,000, \$3,000, \$4,000, \$5,000, and \$6,000, the IRR is approximately 12% (calculated using iterative methods). MIRR = [(FV of positive CF / PV of negative CF)^(1/n)] - 1 Explanation: Adjusts for different reinvestment and finance rates. Example: If positive CF's FV is \$15,000, negative CF's FV is \$10,000 over 3 years, MIRR ≈ [(15000/10000)^(1/3)] - 1 = 14.47%. ROI = [(Gain - Cost) / Cost] × 100% Explanation: Measures profit relative to investment cost. Example: If an investment costs \$10,000 and returns \$15,000, ROI = [(15,000-10,000)/10,000] × 100% = 50%. CAGR = (Ending Value / Beginning Value)^(1/n) - 1 Explanation: The mean annual growth rate over n years. Example: From \$100,000 to \$144,000 over 5 years: CAGR = (144,000/100,000)^(1/5) - 1 = 20%. Explanation: Uses forecasted cash flows discounted at a chosen rate to determine value. Example: Forecasted cash flows of \$10,000 per year for 5 years at 8% discount rate yield DCF = \$40,000. Price = D1 / (r - g) Explanation: Values a stock based on expected future dividends. Example: With next year's dividend of \$5, required return 10%, and growth 3%, Price = 5 / (0.10 - 0.03) = \$71.43. P/E = Market Price per Share / EPS Explanation: Indicates how much investors pay per rupee of earnings. Example: Stock at \$50 and EPS \$2 gives a P/E of 25. P/B = Market Price per Share / Book Value per Share Explanation: Compares market value to accounting value. Example: If market price is \$80 and book value is \$40, P/B = 2. Dividend Yield = Annual Dividend per Share / Market Price per Share Explanation: Shows the return from dividends relative to stock price. Example: Annual dividend \$4 and price \$100 gives 4% yield. Net Income Revenue - Expenses Example: Revenue \$500,000 minus expenses \$350,000 gives net income of \$150,000. Gross Margin = [(Revenue - COGS) / Revenue] × 100% Example: Revenue \$400,000 and COGS \$250,000 yields margin = (400,000-250,000)/400,000 × 100 = 37.5%. Operating Margin = (Operating Profit / Revenue) × 100% Example: Operating profit \$80,000 on revenue of \$400,000 gives 20% margin. EBITDA = Operating Profit + Depreciation + Amortization Example: Operating profit \$70,000, Depreciation \$20,000, Amortization \$10,000 yield EBITDA = \$100,000. Contribution Margin = Price per Unit - Variable Cost per Unit Example: Selling price \$100 and variable cost \$60 gives a margin of \$40 per unit. Breakeven Units = Fixed Costs / (Price per Unit - Variable Cost per Unit) Example: Fixed costs \$50,000, margin per unit \$25 yields 50,000/25 = 2,000 units. Breakeven Revenue = Fixed Costs / Contribution Margin Ratio Example: Fixed costs \$75,000 and margin ratio 0.5 yields 75,000/0.5 = \$150,000. Margin of Safety = (Actual Sales - Breakeven Sales) / Actual Sales × 100% Example: Actual sales \$200,000, breakeven \$150,000 gives (50,000/200,000) × 100 = 25%. Explanation: Reflects how a change in sales volume affects operating income. Example: If a 10% sales increase leads to a 20% increase in operating profit, operating leverage is high. Financial Leverage = Total Assets / Equity Example: Assets \$1,000,000 and equity \$500,000 yield leverage of 2. Explanation: The combined effect of operating and financial leverage. Example: If operating leverage is 1.5 and financial leverage is 2, combined leverage = 1.5 × 2 = 3. ROE = (Net Profit Margin) × (Asset Turnover) × (Equity Multiplier) Example: Margin 10%, turnover 1.8, equity multiplier 1.5 yield ROE = 0.10 × 1.8 × 1.5 = 27%. EVA = NOPAT - (Capital Employed × WACC) Example: NOPAT \$120,000, capital \$800,000, WACC 10% yield EVA = 120,000 - (800,000 × 0.10) = \$40,000. Explanation: The difference between the market value and invested capital. Example: If market value is \$1,200,000 and invested capital is \$1,000,000, then MVA = \$200,000. Explanation: A cash-based performance measure comparing operating cash flow to invested capital. Example: Operating cash flow \$150,000, invested capital \$1,000,000 yield CFROI = 15%. P/C = Market Cap / Operating Cash Flow Example: Market cap \$2,000,000 and operating cash flow \$250,000 yield P/C = 8. EBITDA Margin = (EBITDA / Revenue) × 100% Example: EBITDA \$100,000 on revenue \$500,000 gives margin = 20%. Depreciation = (Cost - Salvage Value) / Useful Life Example: Cost \$50,000, salvage \$5,000, life 10 years. Depreciation = (50,000-5,000)/10 = \$4,500 per year. Explanation: The total depreciation charged on an asset since acquisition. Example: After 3 years at \$4,500 per year, accumulated depreciation = 3 × 4,500 = \$13,500. Amortization = Cost of Intangible Asset / Useful Life Example: Patent costing \$10,000 over 20 years: Amortization = 10,000/20 = \$500 per year. =SUM(range) Example: =SUM(A1:A5) adds all numbers in cells A1 through A5. =AVERAGE(range) Example: =AVERAGE(B1:B10) calculates the mean of cells B1 to B10. =COUNT(range) Example: =COUNT(C1:C8) counts numerical cells in the range C1 to C8. =VLOOKUP(lookup_value, table_array, col_index, [range_lookup]) Example: =VLOOKUP(lookup_value, table_array, col_index, [range_lookup]) Example: =FIND(logical_text, value_if_true, value_if_false) Example: =FIND("High", "Low") returns "High" if 1 = 50. =COUNTIF(range, criteria) Example: =COUNTIF(F1:F10, ">100") counts cells in F1:F10 greater than 100. =SUMIF(range, criteria, [sum_range]) Example: =SUMIF(G1:G10, "Apples", H1:H10) sums H1:H10 where G1:G10 equals "Apples". Explanation: A powerful alternative to VLOOKUP. MATCH finds the position, INDEX returns the value. Example: =INDEX(J1:J10, MATCH("Oranges", I1:I10, 0)) finds "Oranges" in I1:I10 and returns corresponding value from J1:J10. =TEXTJOIN(delimiter, ignore_empty, text1, [text2], ...) Example: =TEXTJOIN(", ", TRUE, K1:K5) concatenates text in K1:K5 separated by commas. Explanation: Measures a stock's volatility relative to the market. Example: A beta of 1.2 means the stock is 20% more volatile than the market. σ = √[(Σ(x_i - μ)^2) / (n - 1)] Example: calculated standard deviation of portfolio returns might be 8%. Variance = σ^2 = 0.064 or 6.4%. Cov(X, Y) = Σ[(X_i - μ_X)(Y_i - μ_Y)] / (n - 1) Example: A positive covariance indicates that two assets tend to move together. ρ = Cov(X, Y) / (σ_X × σ_Y) Example: ρ = 0.8 indicates a strong positive relationship between two assets. Explanation: Estimates the maximum loss over a specified period at a given confidence level. Example: A 5% VaR of \$100,000 portfolio suggests a maximum loss over 1 year of \$5,000 on 5% of days. Explanation: The average loss given that losses exceed the VaR threshold. Example: If losses beyond VaR average 12%, then ES is 12% of portfolio value. Sharpe Ratio = (R_p - R_f) / σ_p Example: Portfolio return 12%, risk-free 3%, σ_p 9% yields (12-3)/9 = 1. Treynor Ratio = (R_p - R_f) / β Example: If R_p = 12%, R_f = 3%, β = 1.2, then Treynor Ratio = (9%/1.2) = 7.5%. Alpha = R_p - [R_f + β_p (R_m - R_f)] Example: With R_p = 15%, R_f = 3%, β_p = 1.1, and R_m = 12%, Alpha = 15% - [3% + 1.1(9%)] = 15% - 12.9% = 2.1%. Information Ratio = Active Return / Tracking Error Example: If active return is 4% and tracking error is 2%, ratio = 4/2 = 2. Sortino Ratio = (R_p - R_f) / Downside Deviation Example: With R_p = 14%, R_f = 3%, and downside deviation 5%, ratio = (14%/5) = 2.8. Explanation: Indicates the proportion of a portfolio's variance explained by the benchmark. Example: An R^2 of 0.85 means 85% of portfolio variability is explained by market movements. Explanation: The standard deviation of only the negative returns. Example: If only losses have a standard deviation of 4%, then downside deviation = 4%. Real Return = (1 + Nominal Return) / (1 + Inflation Rate) - 1 Example: Nominal return 10%, inflation 3% yields (1.10/1.03) - 1 = 6.8% real return. Explanation: The stated return without adjusting for inflation. Example: If an investment grows from \$100,000 to \$110,000, nominal return = 10%. Explanation: Relates nominal rate, real rate, and inflation: (1 + Nominal Rate) = (1 + Real Rate) × (1 + Inflation Rate). Example: If real rate = 5% and inflation = 2%, nominal rate = (1.05 × 1.02) - 1 = 7.1%. EIR = (1 + r/n)^(n) - 1 Example: A 12% rate compounded quarterly gives EIR = (1 + 0.12/4)^4 - 1 = 12.55%. Explanation: The rate used to discount future cash flows; reflects risk and opportunity cost. Financial ratios are compared to benchmarks to determine whether they are good or bad. The benchmarks change as the company moves through its business lifecycle. Benchmarks are often selected according to industry, but some firms are dramatically different than other firms in their industry. Common financial analysis industry ratio benchmarks are calculated by Dun & Bradstreet, Standard & Poor's and the Risk Management Association. It is difficult to compare financial analysis ratios of companies because items on financial reports may be calculated differently. For example, calculating inventory using the first-in-first-out method (FIFO) vs. the last-in-first-out (LIFO) method impacts valuation ratios. Professional analysts are aware of the limitations of financial analysis ratios and adjust for them in their calculations. Generally Accepted Accounting Principles (GAAP) and International Accounting Standards (IAS) also acknowledge issues. Ratios are only as good as the data used to construct them. Sometimes financial statements are restated for various reasons. Sometimes organizations incorrectly report items. Financial statements often come with a list of ending notes which must be carefully scrutinized. Adjustments to figures may be made before calculating ratios. Companies know the importance of financial ratios on their company and use them as metrics in running the business. Individual ratios viewed in isolation may produce inaccurate assessments. For example, when comparing two similar firms with the same Return on Assets (ROA), the firm with lower debt will have better Return on Equity (ROE). Analyzing multiple ratios is a more complex process, but produces more accurate information. The past does not always predict the future. All Blogs/Financial Statement Analysis Resources/Financial Ratios/Financial Statement Analysis/Trend Analysis/Trend Analysis/BOOT CAMP - Financial Modeling (6 Hrs)/LIVE Boot Camp with Expert / Limited Seats/Table Of Contents/Financial ratios are the indicators of the financial performance of companies. Different financial ratios indicate the company's results, financial risks, and working efficiency, like the liquidity ratio, asset turnover ratio, operating profitability ratios, business risk ratios, financial risk ratios, stability ratios, etc.They are the best tools used by the company's management and stakeholders to understand its financial health, risk appetite, overall performance, and growth levels. They act as guidance while making financial and investment related decisions because they provide an insight into the current conditions and future opportunities.Table of contents Looking to master financial modeling without months of study? The Financial Modeling 2-Days Bootcamp covers forecasting, cost analysis, and dynamic financial modeling—ideal for analysts and finance professionals. Includes Excel training and \$300+ in exclusive perks. Learn More - The financial ratios are a perfect quantitative metric that is used to measure the financial condition of the company. It is a process that is used to bring out the current picture of the business as well as make forecasts related to the future possibilities for growth and expansion.These financial key ratios are extremely useful for management decision making and stakeholders understanding. They are easy to interpret as well as calculate, making them very a very important tool for company evaluation. The management, investors, analysts, etc can use analysis of financial ratios for measuring profitability, efficiency, solvency and financial position.This makes stakeholders take informed decisions. In this article we will learn about some important and commonly used financial ratios that provide insight into the various aspects of the company's performance. These ratios are also used in combination with each other so as to get a better understanding of the and a comprehensive view of the company's financial health. However, along with the ratios, it is equally important to factor in the market performance, economic conditions, company or industry specific factors, etc. Otherwise the information will lead to incomplete analysis. Financial Modeling 2-Days Bootcamp: 100% Practical, Career-Boosting Skills Master core financial modeling techniques in just two days with a fully hands-on learning experience. Build real-world models, analyze company performance, and sharpen Excel and valuation skills. Ideal for finance students, analysts, and career switchers looking to gain job-ready expertise and stand out in competitive roles. Learn More - Below are the types and list of financial ratios that are very widely used in every business. Let us identify them: Current Ratio Quick Ratio Absolute Liquidity Ratio Cash Ratio Inventory Turnover Ratio Receivables Turnover Ratio Capital Turnover Ratio Asset Turnover Ratio Net Working Capital Ratio Cash Conversion Cycle Earnings Margin Return on Investment Return on Equity Earnings Per Share Operating Leverage Financial Ratio Debt Service Coverage Ratio Fixed Asset Ratio Current Asset to Fixed Asset Proprietary Ratio Fixed Interest Cover Fixed Dividend Cover Capacity Ratio Activity Ratio Efficiency Ratio Given below are some important formula that the company management and stakeholders use for analysis of financial ratios and company evaluation. They are divided as per the type of analysis they perform. Let us study them in details.The first type of financial ratio analysis is the liquidity ratio. It aims to determine a business's ability to meet its financial obligations during the short term and maintain its short-term debt-paying ability. One can calculate the liquidity ratio in multiple ways. They are as follows: -The current ratio is a working capital ratio or banker's ratio. The current ratio expresses the relationship between a current asset to current liabilities.Formula = Current Assets / Current LiabilitiesOne can compare a company's current ratio with the past current ratio; this will help to determine if the current ratio is high or low at this period in time.The ratio of 1 is ideal; if current assets are twice a current liability. No issue will be in repaying liability. However, if the ratio is less than 2, repayment of liability will be difficult and affect the work.Generally, one can use the current ratio to evaluate an enterprise's short-term solvency or liquidity position. Still, it is often desirable to know a firm's more immediate status or instant debt-paying ability than that indicated by the current ratio for this acid test financial ratio. That is because it relates the most liquid assets to current liabilities.Acid Test Formula = (Current Assets - Inventory)/(Current Liability)One can write the quick ratio as: Quick Ratio Formula = Quick Assets / Current LiabilitiesOrQuick Ratio Formula = Quick Assets / Quick LiabilitiesAbsolute liquidity is also among another financial key ratios that helps to calculate actual liquidity. And for that, inventory and receivables are excluded from current assets. In addition, some assets ban to understand better liquidity. Ideally, the ratio should be 1:2.Absolute Liquidity = Cash + Marketable Securities + Net Receivable and DebtorsThe Cash ratio is useful for a company undergoing financial trouble.Cash Ratio Formula = Cash + Marketable Securities / Current LiabilityIf the ratio is high, then it reflects the underutilization of resources. If the ratio is low, it can lead to a problem in the repayment of bills.The second type of financial ratio analysis is the turnover ratio. The turnover ratio is also known as the activity ratio. This ratio indicates the efficiency with which an enterprise's resources used. Again, the financial ratio can be calculated separately for each asset type.The following are financial ratios commonly calculated:-This financial ratio measures the relative inventory size and influences the cash available to pay liabilities.Inventory Turnover Ratio Formula = Cost of Goods Sold / Average InventoryThe receivable turnover ratio shows how often the receivable turns into cash.Receivable Turnover Ratio Formula = Net Credit Sales / Average Accounts ReceivableThe capital turnover ratio measures the effectiveness with which a firm uses its financial resources.Capital Turnover Ratio Formula = Net Sales / Cost of Goods Sold / Capital EmployedThis financial ratio reveals the number of times the net tangible assets turns over during a year. The higher the ratio better it is.Asset Turnover Ratio Formula = Turnover / Net Tangible AssetsThis financial ratio indicates whether or not working capital has been utilized effectively in sales. Net Working Capital signifies the excess of current assets over current liabilities.Net Working Capital Turnover Ratio Formula = Net Sales / Net Working CapitalThe Cash Conversion Cycle is the total time taken by the firm to convert its cash outflows into cash inflows (returns).Cash Conversion Cycle Formula = Receivable Days + Inventory Days - Payable DaysThe third type of financial key ratios used in financial ratio analysis is the operating profitability ratio. The profitability ratio helps to measure a company's profitability through this efficiency of business activity. The following are the important profitability ratios:- It is the ratio of net income to turnover expressed in percentage. It refers to the final net profit used.Earning Margin Formula = Net Income / Turnover * 100This financial ratio measures profitability concerning the total capital employed in a business enterprise.Return on Investment Formula = Profit Before Interest and Tax / Total Capital EmployedReturn on equity derives by dividing net income by shareholder's equity. It provides a return that management realizes from the shareholder's equity.Return on Equity Formula = Profit After Taxation / Preference Dividends / Ordinary Shareholder's Fund * 100EPS derives by dividing the company's profit by the total number of shares outstanding. It means profit or net earnings.Earnings Per Share Formula = Earnings After Taxation - Preference Dividends / Number of Ordinary SharesBefore investing, the investor uses all the above ratios to maximize profit and analyze risk. He can easily compare and predict a company's future growth through ratios. It also simplifies the financial statement.The fourth type of financial ratio analysis is the business risk ratio. Here, we measure how sensitive the company's earnings are concerning its fixed costs and the assumed debt.Operating leverage is the percentage change in operating profit relative to sales. It measures how sensitive the operating income is to the change in revenues. The greater the use of fixed costs, the more significant the impact of a change in sales on a company's operating income.Operating Leverage Formula = % Change in EBIT / % Change in SalesFinancial leverage is the percentage change in net profit relative to operating profit, and it measures how sensitive the net income is to the change in operating income. Financial leverage primarily originates from the company's financing decisions (debt usage).Financial Leverage Formula = % Change in Net Income / % Change in EBITTotal leverage is the percentage change in net profit relative to its sales. The total leverage measures how sensitive the net income is to the change in sales.Total Leverage Formula = % Change in Net Profit / % Change in SalesThe fifth type of financial ratio is the financial risk ratio. Here, we measure how leveraged the company is and placed concerning its debt repayment capacity.Debt Equity Formula = Long Term Debts / Shareholder's FundIt helps to measure the extent of equity to repay debt. One may use it for long-term calculations. This financial ratio signifies the ability of the firm to pay its financial obligations on the assumed debt.Interest Coverage Ratio Formula = Earnings Before Interest and Tax / Interest ExpenseThe interest coverage ratios imply the greater ability of firm to pay off its interests. If interest coverage is less than 1, then EBITDA is insufficient to pay off interest, implying finding other ways to arrange funds. The Debt Service Coverage Ratio tells us whether the operating income is sufficient to pay off all obligations related to debt in a year. Debt Service Coverage Formula = Operating Income / Debt ServiceOperating Income is nothing but EBITDebt Service is Principal Payments + Interest PaymentsThe sixth type of financial ratio analysis is the stability ratio. It is used with a long-term vision and to check the company's stability in the long run. One can calculate this type of ratio analysis in multiple ways. They are as follows: -This ratio one may use to know whether the company is having good loan or not to meet the long-term business requirement.Fixed Asset Ratio Formula = Fixed Assets / Capital EmployedThe ideal ratio is 0.67. If the ratio is less than 1, one can use it to purchase fixed assets.Ratio to Current Assets = Fixed Assets / Current AssetsIf the ratio increases, profit increases and reflects the business expansion. If the ratio decreases, trading is loose.The proprietary ratio is the ratio of shareholder funds to total tangible assets; it discusses a company's financial strength. Ideally, the ratio should be 1.3.Proprietary Ratio Formula = Shareholder Fund / Total Tangible AssetsThe seventh type of financial ratio analysis is the coverage ratio. This ratio analysis one may use to calculate dividends needed to pay to investors or interest to the lender. The higher the ratio, the better it is. One may estimate it in the below ways: -It measures business profitability and its ability to repay the loan.Fixed Interest Cover Formula = Net Profit Before Interest and Tax / Interest ChargeIt helps to measure the dividends needed to pay the investor.Fixed Dividend Cover Formula = Net Profit Before Interest and Tax / Dividend on Preference ShareThe eighth type of financial ratio analysis is the control ratio. It controls things by management. For example, this ratio analysis helps management check favorable or unfavorable performance.For this type of ratio analysis, one can use the formula below for the same.Capacity Ratio Formula = Actual Hour Worked / Budgeted Hour * 100For calculating the measure of activity below, one may use the formula: Activity Ratio Formula = Standard Hour * 100For calculating productivity, below is the formula:Efficiency Ratio = Standard Hour for Actual Production / Actual Hour Worked * 100If it is 100% or more, it is considered favorable. But if it is less than 100%, it is unfavorable. Let us understand the concepts of calculating financial ratios with the help of some suitable examples.For calculation of current ratio let us assume the following for ABC Ltd.Cash \$ 30 millionInventory \$ 25 millionShort term debt \$ 10 millionAccounts payable \$ 14 millionWe try to calculate the current ratio, it will be as follows:Current ratio = Current Asset/Current Liability = (30+25)/(10+14) = 55/24 = 2.29In this example, let us see how calculating financial ratios can be used for comparison.Suppose Black Ltd and White Ltd are two pharmaceutical companies operating in the same region. But the inventory turnover ratio of Black Ltd is 25%, whereas that of White Ltd is 30%. From the above data, we can conclude that White Ltd is able to convert its inventory into sales much faster than Black Ltd because its inventory turnover ratio is higher than Black Ltd.This also proves that White Ltd's sale is higher, leading to higher revenue, increasing its chance of profit earning and customer base expansion. It also means that less capital is blocked in the form of inventory, which can be used for some other important purpose.These financial ratios in accounting have a lot of importance in the financial market and provide valuable insight for analysts, investor, management, or anyone who has some interest in the overall performance of the company. Assessment - The most important use is the assessment or evaluation of performance, which helps investors or stakeholders take important financial and investment decisions. Comparison - The metrics can be successfully used to compare similar companies or businesses in the same industry to understand and identify the relative strength and weakness. This also helps in understanding the competitive position. Trend - The ratios help in clarifying trends over a number of years to observe whether the company is improving or not. It indicates any improvement, fall or stability in its overall performance. Credit analysis - The method also helps in evaluating the credit condition of the business, which means how much capacity to pay off the debts. High credit worthy companies have the facility of getting loans at lower interest rates and favourable credit terms. Problem identification - The financial ratios in accounting provide ways and means to identify problems which hinder the progress of the company. It is necessary to identify the problem areas and take steps to control or mitigate them on time so that they don't accelerate into sometime negative, thus affecting the image and performance of the company. Management decision - The management monitors the performance and identify risk and opportunities for the best interest of the business and stakeholders. These ratios help in tracking progress, setting goals and ultimately enhance business efficiency. Let us understand the limitations of the process: Lack of proper context - They do not take into account the specific context or industry rules and specifications. One ratio may be good for one company but not suitable for another company even though they are in the same industry. Past data - They mostly deal with past data which may not reflect the current market condition of strategy changes. Variation in accounting methods - The methods of accounting followed in companies vary leading to inconsistency and differences in financial statements and interpretation of ratios. Window Dressing - The management may use the ratios for making the financial statements and reports look good and profitable in order to attract more investors. This is sometimes difficult to detect and harmful for stakeholders. Lack of non-financial consideration - The ratios don't take into account the non-financial factors like, management skills and quality, technological advancements, etc. The inflation effect - The effect of inflation over time on these financial ratios cannot be ruled out. Inflation affects the assets and liabilities over time. 1. Why are financial ratios important?Financial ratios are important because they provide valuable insights into a company's financial performance, profitability, liquidity, and overall health. They help investors, analysts, and stakeholders make informed decisions about investments, assess risk, and evaluate a business's financial stability and efficiency. 2. What financial ratios are important to investors?Important financial ratios for investors include profitability ratios (such as return on equity and net profit margin), liquidity ratios (like current ratio and quick ratio), and solvency ratios (such as debt-to-equity ratio). These ratios help investors gauge the company's profitability, ability to meet short-term obligations, and long-term financial stability. 3. What are the limitations of financial ratios?Financial ratios have limitations. They rely on historical financial data and may not capture future trends or market changes. Ratios can vary across industries, making comparing them within the same sector crucial. Additionally, ratios are based on accounting principles and may not reflect a company's true economic value or performance. It's important to consider other qualitative and quantitative factors alongside financial ratios for a comprehensive analysis. The use of financial figures to gain significant information about a companyA free best practices guide for essential ratios in comprehensive financial analysis and business decision-making. Financial ratios are created with the use of numerical values taken from financial statements - balance sheet, income statement, and cash flow statement - are used to perform quantitative analysis and assess a company's liquidity, leverage, growth, margins, profitability, rates of return, valuation, and more. Financial ratios are grouped into the following categories: Liquidity ratios Leverage ratios Efficiency ratios Profitability ratios Market value ratios Uses and Users of Financial Ratio Analysis Analysis of financial ratios serves two main purposes: 1. Track company performance Determining individual financial ratios per period and tracking the change in their values over time is done to spot trends that may be developing in a company. For example, an increasing debt-to-asset ratio may indicate that a company is overburdened with debt and may eventually be facing default risk. 2. Make comparative judgments regarding company performance Comparing financial ratios with that of major competitors is done to identify whether a company is performing better or worse than the industry average. For example, comparing the return on assets between companies helps an analyst or investor to determine which company is making the most efficient use of its assets. Users of financial ratios include parties external and internal to the company. External users: Financial analysts, retail investors, creditors, competitors, tax authorities, regulatory authorities, and industry observers Internal users: Management team, employees, and owners Liquidity Ratios Liquidity ratios are financial ratios that measure a company's ability to repay both short- and long-term obligations. Common liquidity ratios include the following: The current ratio measures a company's ability to pay off short-term liabilities with current assets: Current ratio = Current assets / Current liabilities The acid-test ratio measures a company's ability to pay off short-term liabilities with quick assets: Acid-test ratio = Current assets - Inventories / Current liabilities The cash ratio measures a company's ability to pay off short-term liabilities with cash and cash equivalents: Cash ratio = Cash and Cash equivalents / Current liabilities The operating cash flow ratio is a measure of the number of times a company can pay off current liabilities with the cash generated in a given period: Operating cash flow ratio = Operating cash flow / Current liabilities Leverage Financial Ratios Leverage ratios measure the amount of capital that comes from debt. In other words, leverage financial ratios are used to evaluate a company's debt levels. Common leverage ratios include the following: The debt ratio measures the relative amount of a company's assets that are provided from debt: Debt ratio = Total liabilities / Total assets The debt to equity ratio calculates the weight of total debt and financial liabilities against shareholders' equity: Debt to equity ratio = Total liabilities / Shareholder's equity The interest coverage ratio shows how easily a company can pay its interest expenses: Interest coverage ratio = Operating income / Interest expenses The debt service coverage ratio reveals how easily a company can pay its debt obligations: Debt service coverage ratio = Operating income / Total debt service Efficiency Ratios Efficiency ratios, also known as activity financial ratios, are used to measure how well a company is utilizing its assets and resources. Common efficiency ratios include: The asset turnover ratio measures a company's ability to generate sales from assets: Asset turnover ratio = Net sales / Average total assets The inventory turnover ratio measures how many times a company's inventory is sold and replaced over a given period: Inventory turnover ratio = Cost of goods sold / Average inventory The accounts receivable turnover ratio measures how many times a company can turn receivables into cash over a given period: Receivables turnover ratio = Net credit sales / Average accounts receivable The days sales in inventory ratio measures the average number of days that a company holds on to inventory before selling it to customers: Days sales in inventory ratio = 365 days / Inventory turnover ratio Profitability Ratios Profitability ratios measure a company's ability to generate income relative to revenue, balance sheet assets, operating costs, and equity. Common profitability financial ratios include the following: The gross margin ratio compares the gross profit of a company to its net sales to show how much profit a company makes after paying its cost of goods sold: Gross margin ratio = Gross profit / Net sales The operating margin ratio, sometimes known as the return on sales ratio, compares the operating income of a company to its net sales to determine operating efficiency: Operating margin ratio = Operating income / Net sales The return on assets ratio measures how efficiently a company is using its assets to generate profit: Return on assets ratio = Net income / Total assets The return on equity ratio measures how efficiently a company is using its equity to generate profit: Return on equity ratio = Net income / Shareholder's equity Learn more about the different profitability ratios in the following video: Market value ratios are used to evaluate the share price of a company's stock. Common market value ratios include the following: The book value per share ratio calculates the per-share value of a company based on the equity available to shareholders: Book value per share ratio = (Shareholder's equity - Preferred equity) / Total common shares outstanding The dividend yield ratio measures the amount of dividends attributed to shareholders relative to the market value per share: Dividend yield ratio = Dividend per share / Share price The earnings per share ratio measures the amount of net income earned for each share outstanding: Earnings per share ratio = Net earnings / Total shares outstanding The price-earnings ratio compares a company's share price to its earnings per share: Price-earnings ratio = Share price / Earnings per share Thank you for reading CFI's guide to financial ratios. To help you advance your career in the financial services industry, check out the following additional CFI resources: Today's Lowest Mortgage Rates by State - May 27, 2025 May 27, 2025 After Hitting a 2025 Peak, Refinance Rates Have Stepped Off the Gas May 27, 2025 Mortgage Rates Have Stepped Off the Gas May 27, 2025 Top Stock Movers Now: Tesla, AutoZone, Newmont, and More May 27, 2025 Rocket Pharmaceuticals Stock Craters After Gene Therapy Patient Dies May 27, 2025 AMC Announces Record-Breaking Memorial Day Numbers, Thanks to 'Lilo & Stitch' May 27, 2025 All Bags Will No Longer Fly Free on Southwest Airlines, Starting Tomorrow May 27, 2025 AutoZone's Same-Store Sales Top Estimates, But Gross Margins Fall May 27, 2025 PDD Holdings Stock Sinks as Temu Parents' Results Come Up Well Short Updated May 27, 2025 Watch These S&P 500 Levels as Benchmark Index Lungs to Snap 4-Day Losing Streak May 27, 2025 Compare Current Jumbo Mortgage Rates Today - May 27, 2025 Updated May 27, 2025 Trump Media May 27, 2025 Trump Media and ETEchnology Plans to Raise \$3B to Buy Cryptocurrencies, Report Says May 27, 2025 5 Things to Know Before the Stock Market Opens May 27, 2025 3 Inflation-Busting Strategies for Your Emergency Fund Right Now Updated May 27, 2025 Watch These Nvidia Stock Price Levels Ahead of Earnings Report on Wednesday May 27, 2025 The use of financial figures to gain significant information about a companyA free best practices guide for essential ratios in comprehensive financial analysis and business decision-making. Financial ratios are created with the use of numerical values taken from financial statements to gain meaningful information about a company. The numbers found on a company's financial statements - balance sheet, income statement, and cash flow statement - are used to perform quantitative analysis and assess a company's liquidity, leverage, growth, margins, profitability, rates of return, valuation, and more. Financial ratios are grouped into the following categories: Liquidity ratios Leverage ratios Efficiency ratios Profitability ratios Market value ratios Uses and Users of Financial Ratio Analysis Analysis of financial ratios serves two main purposes: 1. Track company performance Determining individual financial ratios per period and tracking the change in their values over time is done to spot trends that may be developing in a company. For example, an increasing debt-to-asset ratio may indicate that a company is overburdened with debt and may eventually be facing default risk. 2. Make comparative judgments regarding company performance Comparing financial ratios with that of major competitors is done to identify whether a company is performing better or worse than the industry average. For example, comparing the return on assets between companies helps an analyst or investor to determine which company is making the most efficient use of its assets. Users of financial ratios include parties external and internal to the company. External users: Financial analysts, retail investors, creditors, competitors, tax authorities, regulatory authorities, and industry observers Internal users: Management team, employees, and owners Liquidity Ratios Liquidity ratios are financial ratios that measure a company's ability to repay both short- and long-term obligations. Common liquidity ratios include the following: The current ratio measures a company's ability to pay off short-term liabilities with current assets: Current ratio = Current assets / Current liabilities The acid-test ratio measures a company's ability to pay off short-term liabilities with quick assets: Acid-test ratio = Current assets - Inventories / Current liabilities The cash ratio measures a company's ability to pay off short-term liabilities with cash and cash equivalents: Cash ratio = Cash and Cash equivalents / Current liabilities The operating cash flow ratio is a measure of the number of times a company can pay off current liabilities with the cash generated in a given period: Operating cash flow ratio = Operating cash flow / Current liabilities Leverage Financial Ratios Leverage ratios measure the amount of capital that comes from debt. In other words, leverage financial ratios are used to evaluate a company's debt levels. Common leverage ratios include the following: The debt ratio measures the relative amount of a company's assets that are provided from debt: Debt ratio = Total liabilities / Total assets The debt to equity ratio calculates the weight of total debt and financial liabilities against shareholders' equity: Debt to equity ratio = Total liabilities / Shareholder's equity The interest coverage ratio shows how easily a company can pay its debt obligations: Debt service coverage ratio = Operating income / Total debt service Efficiency Ratios Efficiency ratios, also known as activity financial ratios, are used to measure how well a company is utilizing its assets and resources. Common efficiency ratios include: The asset turnover ratio measures a company's ability to generate sales from assets: Asset turnover ratio = Net sales / Average total assets The inventory turnover ratio measures how many times a company's inventory is sold and replaced over a given period: Inventory turnover ratio = Cost of goods sold / Average inventory The accounts receivable turnover ratio measures how many times a company can turn receivables into cash over a given period: Receivables turnover ratio = Net credit sales / Average accounts receivable The days sales in inventory ratio measures the average number of days that a company holds on to inventory before selling it to customers: Days sales in inventory ratio = 365 days / Inventory turnover ratio Profitability Ratios Profitability ratios measure a company's ability to generate income relative to revenue, balance sheet assets, operating costs, and equity. Common profitability financial ratios include the following: The gross margin ratio compares the gross profit of a company to its net sales to show how much profit a company makes after paying its cost of goods sold: Gross margin ratio = Gross profit / Net sales The operating margin ratio, sometimes known as the return on sales ratio, compares the operating income of a company to its net sales to determine operating efficiency: Operating margin ratio = Operating income / Net sales The return on assets ratio measures how efficiently a company is using its assets to generate profit: Return on assets ratio = Net income / Total assets The return on equity ratio measures how efficiently a company is using its equity to generate profit: Return on equity ratio = Net income / Shareholder's equity Learn more about the different profitability ratios in the following video: Market value ratios are used to evaluate the share price of a company's stock. Common market value ratios include the following: The book value per share ratio calculates the per-share value of a company based on the equity available to shareholders: Book value per share ratio = (Shareholder's equity - Preferred equity) / Total common shares outstanding The dividend yield ratio measures the amount of dividends attributed to shareholders relative to the market value per share: Dividend yield ratio = Dividend per share / Share price The earnings per share ratio measures the amount of net income earned for each share outstanding: Earnings per share ratio = Net earnings / Total shares outstanding The price-earnings ratio compares a company's share price to its earnings per share: Price-earnings ratio = Share price / Earnings per share Thank you for reading CFI's guide to financial ratios. To help you advance your career in the financial services industry, check out the following additional CFI resources: