FINANCIAL RATIOS CHEAT SHEET

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1. Liquidity Ratios

Liquidity ratios measure a company's ability to meet its short-term obligations and convert its assets into cash quickly. These ratios are crucial for assessing a company's short-term financial health and its capacity to handle immediate financial commitments. Liquidity ratios are particularly important to creditors, suppliers, and other short-term lenders who are interested in the company's ability to pay its debts promptly.

1.1. Current Ratio

Formula: Current Ratio = Current Assets / Current Liabilities

Detailed Explanation: The Current Ratio is a fundamental liquidity metric that assesses a company's ability to pay off its short-term liabilities (due within one year) using its short-term assets (convertible into cash within one year). It provides a snapshot of the company's financial health in the short term.

Implications:

- Increase:
    - Improved short-term solvency
    - Better ability to cover immediate obligations
    - Possibly accumulating excess cash or inventory
- Decrease:
    - Potential liquidity issues
    - May struggle to meet short-term obligations
    - Possible efficient use of assets if managed well

Analyst's Takeaway:

- High ratio (>2):
    - Strong liquidity position
    - Possible inefficient use of assets; company might be overlooking investment opportunities
- Low ratio (<1):
    - Risk of liquidity problems
    - May struggle to pay short-term obligations
    - Could lead to increased borrowing or delayed payments to creditors
- Ideal range often considered between 1.5 and 3, but this can vary by industry

Example: Current Assets = ₹200,000; Current Liabilities = ₹100,000 Current Ratio = 200,000 / 100,000 = 2

In this example, the company has a healthy current ratio of 2, indicating it has twice as many current assets as current liabilities. This suggests good short-term liquidity, but an analyst might also consider if the company is using its assets efficiently.

1.2. Quick Ratio (Acid-Test Ratio)

Formula: Quick Ratio = (Current Assets - Inventories) / Current Liabilities

Detailed Explanation: The Quick Ratio, also known as the Acid-Test Ratio, is a more stringent measure of liquidity than the Current Ratio. It excludes inventories from current assets because inventories are typically the least liquid current asset and the most likely to incur losses in the event of rapid liquidation.

Implications:

- Increase:
    - Improved immediate liquidity position
    - Better ability to meet short-term obligations without relying on inventory sales
    - Potentially lower risk in case of economic downturn
- Decrease:
    - Potential immediate liquidity issues
    - Higher reliance on inventory to cover short-term liabilities
    - Possible cash flow problems if inventory cannot be quickly converted to cash

Analyst's Takeaway:

- High ratio (>1):
    - Strong immediate liquidity position
    - Well-prepared for short-term obligations without inventory reliance
    - Possibly overly conservative, potentially missing growth opportunities
- Low ratio (<1):
    - May indicate liquidity concerns, especially in industries with slow-moving inventory
    - Higher risk if faced with immediate cash needs
    - Need to examine inventory turnover and cash conversion cycle
- Ideal ratio often considered to be 1, but can vary by industry

Example: Current Assets = ₹200,000; Inventory = ₹50,000; Current Liabilities = ₹100,000 Quick Ratio = (200,000 - 50,000) / 100,000 = 1.5

In this case, the company has a strong quick ratio of 1.5, indicating it can comfortably meet its short-term obligations even without relying on inventory sales.

1.3. Cash Ratio

Formula: Cash Ratio = (Cash and Cash Equivalents) / Current Liabilities

Detailed Explanation: The Cash Ratio is the most conservative of the liquidity ratios. It only considers cash and cash equivalents (highly liquid short-term investments) in relation to current liabilities. This ratio represents a company's ability to pay off its short-term liabilities using only its most liquid assets.

Implications:

- Increase:
    - Strongest liquidity position
    - High level of financial flexibility
    - Better positioned to handle unexpected financial challenges
- Decrease:
    - Reduced immediate liquidity
    - Higher reliance on non-cash current assets or cash flow from operations
    - Potentially more efficient use of cash if deliberate

Analyst's Takeaway:

- High ratio (>1):
    - Very strong immediate liquidity
    - Potentially too conservative, possibly missing investment opportunities
    - May indicate preparation for major expenditures or acquisitions
- Low ratio (<0.5):
    - Potential immediate liquidity concerns
    - Higher reliance on operating cash flows or non-cash assets
    - Need to examine cash flow stability and working capital management
- Ideal ratio varies significantly by industry and company strategy

Example: Cash and Cash Equivalents = ₹80,000; Current Liabilities = ₹100,000 Cash Ratio = 80,000 / 100,000 = 0.8

With a cash ratio of 0.8, the company can cover 80% of its current liabilities with its most liquid assets. This is generally considered a strong position, though the ideal level depends on the industry and specific company circumstances.

1.4. Operating Cash Flow Ratio

Formula: Operating Cash Flow Ratio = Operating Cash Flow / Current Liabilities

Detailed Explanation: The Operating Cash Flow Ratio measures a company's ability to cover its current liabilities with the cash generated from its core business operations. This ratio

provides insight into a company's ability to remain solvent based on its operating activities, without relying on external financing or asset sales.

Implications:

- Increase:
    - Strong operational liquidity
    - Better ability to cover short-term obligations from core business activities
    - Less reliance on external financing for working capital needs
- Decrease:
    - Potential operational liquidity problems
    - May need to rely more on external financing or asset sales
    - Possible decline in operational efficiency or market conditions

Analyst's Takeaway:

- High ratio (>1):
    - Positive sign; sufficient operational cash flow to cover short-term liabilities
    - Strong core business performance
    - Potential for internal funding of growth or increased shareholder returns
- Low ratio (<1):
    - May indicate liquidity challenges from operations
    - Need to examine reasons for low operational cash flow
    - Potential need for external financing or restructuring
- Trend analysis is crucial; consistent improvement is generally a positive sign

Example: Operating Cash Flow = ₹120,000; Current Liabilities = ₹100,000 Operating Cash Flow Ratio = 120,000 / 100,000 = 1.2

With an operating cash flow ratio of 1.2, the company generates enough cash from its core operations to cover its current liabilities 1.2 times over. This indicates strong operational liquidity and financial health.

2. Profitability Ratios

Profitability ratios measure a company's ability to generate earnings relative to its revenue, operating costs, balance sheet assets, or shareholders' equity over time. These ratios are crucial for evaluating a company's financial performance, operational efficiency, and return on investment. They are of particular interest to investors and company management.

2.1. Gross Profit Margin

Formula: Gross Profit Margin = (Gross Profit / Revenue) * 100

Detailed Explanation: The Gross Profit Margin represents the percentage of revenue that exceeds the cost of goods sold (COGS). It indicates how efficiently a company uses its resources to produce goods or services. This margin is crucial as it needs to be sufficient to cover other expenses and generate a net profit.

Implications:

- Increase:
    - Improved cost management in production or service delivery
    - Higher pricing power in the market
    - Potential for economies of scale
- Decrease:
    - Increased cost of goods sold relative to revenue
    - Pricing pressures in the market
    - Potential inefficiencies in the production process

Analyst's Takeaway:

- High margin:
    - Effective cost control in production/service delivery
    - Strong market position allowing for higher prices
    - Need to ensure quality isn't compromised for margin
- Low margin:
    - Cost pressures or aggressive pricing strategy
    - May indicate highly competitive market
    - Need to examine strategies for cost reduction or value addition
- Comparison with industry averages is crucial; margins can vary significantly between sectors

Example: Gross Profit = ₹300,000; Revenue = ₹500,000 Gross Profit Margin = (300,000 / 500,000) * 100 = 60%

A gross profit margin of 60% indicates that for every rupee of revenue, the company retains 60 paise after accounting for the direct costs of producing its goods or services. This is generally considered a healthy margin, though ideal levels vary by industry.

2.2. Operating Profit Margin

Formula : Operating Profit Margin = (Operating Income / Revenue) * 100

Detailed Explanation: The Operating Profit Margin measures the percentage of revenue left after accounting for both COGS and operating expenses (but before interest and taxes). It reflects the efficiency of a company's core business operations and its ability to manage both production costs and overhead expenses.

Implications:

- Increase:
    - Better operational efficiency
    - Improved control over both COGS and operating expenses
    - Potential for higher net profitability
- Decrease:
    - Rising operational costs relative to revenue
    - Possible decline in operational efficiency
    - May indicate pricing pressures or increased competition

Analyst's Takeaway:

- High margin:
    - Strong core business performance
    - Effective cost management across operations
    - Better positioned to handle economic downturns
- Low margin:
    - Operational inefficiencies or high costs
    - May struggle during economic challenges
    - Need to examine cost structure and pricing strategy
- Trend analysis is important; consistent improvement generally indicates good management

Example: Operating Income = ₹100,000; Revenue = ₹500,000 Operating Profit Margin = (100,000 / 500,000) * 100 = 20%

An operating profit margin of 20% means that the company retains 20% of its revenue after accounting for COGS and operating expenses. This indicates solid operational efficiency, though the interpretation depends on industry standards and company-specific factors.

2.3. Net Profit Margin

Formula: Net Profit Margin = (Net Income / Revenue) * 100

Detailed Explanation: The Net Profit Margin shows the percentage of revenue that translates into profit after accounting for all expenses, including COGS, operating expenses, interest, and taxes. It's a comprehensive measure of a company's profitability and its ability to control costs at all levels.

Implications:

- Increase :
  - Better overall profitability
  - Improved cost management across all aspects of the business
  - Potential for higher returns to shareholders
- Decrease:
  - Decline in overall profitability
  - Increased costs or lower revenue
  - May indicate challenges in market conditions or internal efficiencies

Analyst's Takeaway:

- High margin:
  - Strong profitability and cost management
  - Better positioned for reinvestment or shareholder returns
  - Need to ensure sustainable practices for maintaining high margins
- Low margin:
  - Challenges in cost control or pricing
  - May indicate highly competitive market or internal inefficiencies
  - Need to examine all aspects of the business for improvement opportunities
- Industry comparison is crucial; acceptable margins vary widely between sectors

Example: Net Income = ₹50,000; Revenue = ₹500,000 Net Profit Margin = (50,000 / 500,000) * 100 = 10%

A net profit margin of 10% indicates that the company converts 10% of its revenue into profit after accounting for all expenses. This is generally considered healthy, though ideal levels depend on the industry and growth stage of the company.

2.4. Return on Assets (ROA)

Formula: ROA = (Net Income / Total Assets) * 100

Detailed Explanation: Return on Assets measures how efficiently a company uses its assets to generate profit. It indicates the amount of profit generated for each unit of assets. ROA is particularly useful for comparing companies within the same industry as it takes into account the company's asset base.

Implications:

- Increase:
  - Better asset utilization
  - Improved operational efficiency
  - Potentially higher returns for investors

- Decrease:
    - Lower profitability relative to asset base
    - Possible inefficient use of assets
    - May indicate need for restructuring or divestment

Analyst's Takeaway:

- High ROA:
    - Effective use of assets in generating profits
    - May indicate competitive advantage or efficient management
    - Consider sustainability of high returns
- Low ROA:
    - Potential inefficiencies in asset utilization
    - May suggest overcapitalization or poor asset management
    - Need to examine reasons for low returns and potential for improvement
- ROA should be compared to the company's cost of capital and industry averages

Example: Net Income = ₹50,000; Total Assets = ₹500,000 ROA = (50,000 / 500,000) * 100 = 10%

An ROA of 10% means the company generates 10 paise of profit for every rupee of assets. This is generally considered good, though the interpretation depends on the industry and the company's capital intensity.

2.5. Return on Equity (ROE)

Formula: ROE = (Net Income / Shareholder's Equity) * 100

Detailed Explanation: Return on Equity measures how effectively a company uses its shareholders' investments to generate profits. It represents the amount of net income returned as a percentage of shareholders' equity. ROE is a key metric for investors as it shows the company's efficiency at generating profits from every unit of shareholders' equity.

Implications:

- Increase:
    - More efficient use of equity capital
    - Potentially higher returns for shareholders
    - May indicate improved operational performance or financial leverage
- Decrease:
    - Declining profitability relative to equity
    - Possible inefficient use of shareholder investments
    - May suggest problems with the business model or market conditions

Analyst's Takeaway:

- High ROE:
    - Effective management of shareholder investments
    - Potentially attractive to investors
    - Need to examine if high ROE is due to excessive leverage
- Low ROE:
    - Potential underperformance in utilizing shareholder funds
    - May indicate need for improved operational efficiency or capital structure
    - Consider industry comparisons and company's growth stage
- ROE should be analyzed alongside other metrics like ROA and financial leverage

Example: Net Income = ₹50,000; Shareholder's Equity = ₹250,000 ROE = (50,000 / 250,000) * 100 = 20%

An ROE of 20% indicates that the company generates 20 paise of profit for every rupee of shareholder equity. This is generally considered strong, though it's important to compare with industry averages and examine the sources of this return.

3. Leverage (Solvency) Ratios

Solvency ratios, also known as leverage ratios, measure a company's ability to meet its long-term debt obligations and assess its overall financial structure. These ratios are crucial for understanding a company's capital structure, its reliance on debt financing, and its long-term financial stability. They are particularly important to long-term creditors, bondholders, and potential investors.

3.1. Debt-to-Equity Ratio

Formula: Debt-to-Equity Ratio = Total Debt / Shareholder's Equity

Detailed Explanation: The Debt-to-Equity Ratio is a key leverage ratio that compares a company's total debt to its shareholder equity. It indicates the degree to which a company is financing its operations through debt versus wholly-owned funds. This ratio provides insights into a company's financial leverage and potential risks.

Implications:

- Increase:
  - Higher financial risk due to increased debt
  - Potential for higher returns to shareholders if debt is used effectively
  - Greater vulnerability to interest rate changes and economic downturns
- Decrease:
  - Lower financial risk; more conservative capital structure
  - Potentially lower returns due to less leverage
  - Greater resilience during economic challenges

Analyst's Takeaway:

- High ratio:
  - Greater financial risk
  - Potential for higher returns but also higher volatility
  - Need to examine ability to service debt and interest coverage
- Low ratio:
  - More conservative capital structure
  - Lower financial risk but potentially lower returns
  - May indicate underutilization of leverage or risk aversion
- Optimal ratio varies by industry; capital-intensive industries often have higher ratios

Example: Total Debt = ₹200,000; Shareholder's Equity = ₹400,000 Debt-to-Equity Ratio = 200,000 / 400,000 = 0.5

A debt-to-equity ratio of 0.5 indicates that the company has ₹0.50 of debt for every ₹1 of equity. This is generally considered a conservative capital structure, but interpretation depends on industry norms and company strategy.

3.2. Debt Ratio

Formula: Debt Ratio = Total Debt / Total Assets

Detailed Explanation: The Debt Ratio measures the proportion of a company's assets that are financed by debt. It provides a broader view of a company's solvency than the Debt-to-Equity ratio as it considers all assets, not just equity.

Implications:

- Increase:
    - Higher leverage; more assets financed by debt
    - Increased financial risk and potential for financial distress
    - Possible tax benefits due to interest deductibility
- Decrease:
    - Lower leverage; more assets financed by equity
    - Reduced financial risk and greater long-term solvency
    - Potentially lower returns on equity due to less leverage

Analyst's Takeaway:

- High ratio (>0.6):
    - Higher financial risk
    - May indicate aggressive use of leverage
    - Need to examine interest coverage and cash flows
- Low ratio (<0.4):
    - More conservative financial structure
    - Greater capacity to borrow in the future
    - Potentially underutilizing leverage
- Industry comparisons are crucial; capital-intensive industries often have higher debt ratios

Example: Total Debt = ₹200,000; Total Assets = ₹500,000 Debt Ratio = 200,000 / 500,000 = 0.4 (40%)

A debt ratio of 0.4 means 40% of the company's assets are financed by debt. This is generally considered a moderate level of leverage, providing a balance between risk and potential returns.

3.3. Interest Coverage Ratio

Formula: Interest Coverage Ratio = EBIT / Interest Expense

Detailed Explanation: The Interest Coverage Ratio measures a company's ability to pay the interest on its outstanding debt. It indicates how many times over a company can pay its interest obligations with its earnings before interest and taxes (EBIT).

Implications:

- Increase:
  - Better ability to meet interest payments
  - Lower risk of default on debt obligations
  - Potential capacity to take on more debt
- Decrease:
  - Reduced ability to cover interest expenses
  - Higher risk of financial distress
  - May indicate declining earnings or increasing debt burden

Analyst's Takeaway:

- High ratio (>3):
  - Strong ability to meet interest obligations
  - Lower risk of financial distress
  - Potential for taking on additional debt if needed
- Low ratio (<1.5):
  - Potential risk of default on debt
  - May indicate earnings volatility or excessive debt
  - Need to examine cash flows and debt structure
- Trend analysis is crucial; a declining trend may signal future problems

Example: EBIT = ₹100,000; Interest Expense = ₹20,000 Interest Coverage Ratio = 100,000 / 20,000 = 5

An interest coverage ratio of 5 indicates that the company can pay its interest expenses 5 times over with its current earnings. This suggests a strong ability to meet interest obligations and a low risk of default.

3.4. Debt Service Coverage Ratio (DSCR)

Formula: DSCR = Net Operating Income / Total Debt Service

Detailed Explanation: The Debt Service Coverage Ratio measures a company's ability to use its operating income to repay all its debt obligations, including interest and lease payments. It's a comprehensive measure of a company's ability to take on and service additional debt.

Implications:

- Increase :
  - Improved ability to service all debt obligations
  - Lower risk for lenders and potential for better loan terms
  - Possible capacity to take on additional debt
- Decrease:
  - Reduced ability to meet debt obligations
  - Higher risk for lenders and potential for stricter loan terms
  - May indicate declining operating performance or overleveraging

Analyst's Takeaway:

- High ratio (>1.5):
  - Strong debt servicing capability
  - Lower risk for lenders
  - Potential for additional borrowing capacity
- Low ratio (<1.2):
  - Risk of default on debt obligations
  - May violate loan covenants
  - Need to examine cash flow management and debt restructuring options
- Lenders often require a minimum DSCR; trend analysis is important

Example: Net Operating Income = ₹120,000; Total Debt Service = ₹100,000 DSCR = 120,000 / 100,000 = 1.2

A DSCR of 1.2 indicates that the company has 1.2 times the income needed to cover its debt obligations. While this is above 1, it's relatively low and may be concerning to lenders.

4. Efficiency (Activity) Ratios

Efficiency ratios, also known as activity ratios, indicate how effectively a company uses its assets and manages its operations. These ratios are crucial for understanding a company's operational efficiency and working capital management.

4.1. Inventory Turnover Ratio

Formula: Inventory Turnover Ratio = Cost of Goods Sold / Average Inventory

Detailed Explanation: The Inventory Turnover Ratio measures how many times a company's inventory is sold and replaced over a period. It indicates how efficiently a company manages its inventory.

Implications:

- Increase:
    - More efficient inventory management
    - Lower holding costs and reduced risk of obsolescence
    - Potentially higher profitability due to better cash flow
- Decrease:
    - Less efficient inventory management
    - Higher holding costs and increased risk of obsolescence
    - Potential overstocking or slow-moving inventory

Analyst's Takeaway:

- High ratio:
    - Efficient inventory management
    - Lower working capital tied up in inventory
    - Need to ensure it's not leading to stockouts
- Low ratio:
    - Potential overstocking or obsolescence issues
    - Higher working capital tied up in inventory
    - Need to examine inventory management practices
- Ideal ratio varies significantly by industry; comparison with peers is crucial

Example: Cost of Goods Sold = ₹400,000; Average Inventory = ₹100,000 Inventory Turnover Ratio = 400,000 / 100,000 = 4

An inventory turnover ratio of 4 indicates that the company's inventory is sold and replaced 4 times a year. This suggests relatively efficient inventory management, but interpretation depends on industry norms.

4.2. Days Inventory Outstanding (DIO)

Formula: DIO = (Average Inventory / Cost of Goods Sold) × 365

Detailed Explanation: Days Inventory Outstanding represents the average number of days it takes for a company to turn its inventory into sales. It's essentially the inverse of the Inventory Turnover Ratio, expressed in days.

Implications:

- Increase:
  - Longer time to sell inventory
  - Potentially higher holding costs and obsolescence risk
  - May indicate declining sales or overstocking
- Decrease:
  - Faster inventory turnover
  - Lower holding costs and reduced obsolescence risk
  - May indicate improved sales or more efficient inventory management

Analyst's Takeaway:

- High DIO:
  - Possible slow-moving inventory or overstocking
  - Higher working capital tied up in inventory
  - Need to examine inventory management and sales strategies
- Low DIO:
  - Efficient inventory management
  - Lower working capital requirements
  - Need to ensure it's not leading to stockouts
- Should be compared to payment terms and industry averages

Example: Average Inventory = ₹100,000; Cost of Goods Sold = ₹400,000 DIO = (100,000 / 400,000) × 365 = 91.25 days

A DIO of 91.25 days means it takes an average of about 3 months to sell the entire inventory. Whether this is good or bad depends on the industry and the company's specific circumstances.

4.3. Receivables Turnover Ratio

Formula: Receivables Turnover Ratio = Net Credit Sales / Average Accounts Receivable

Detailed Explanation: The Receivables Turnover Ratio measures how efficiently a company collects credit sales from its customers. It indicates how many times per year the company collects its average accounts receivable.

Implications:

- Increase :
  - More efficient collection of receivables
  - Improved cash flow and working capital management
  - May indicate stricter credit policies
- Decrease:
  - Less efficient collection of receivables
  - Potential cash flow issues
  - May indicate looser credit policies or collection problems

Analyst's Takeaway:

- High ratio:
  - Efficient credit and collection practices
  - Lower risk of bad debts
  - Need to ensure it's not due to overly strict credit policies
- Low ratio:
  - Potential collection issues or overly lenient credit terms
  - Higher working capital tied up in receivables
  - Need to examine credit policies and collection practices
- Should be analyzed alongside credit terms offered to customers

Example: Net Credit Sales = ₹500,000; Average Accounts Receivable = ₹100,000 Receivables Turnover Ratio = 500,000 / 100,000 = 5

A receivables turnover ratio of 5 indicates that the company collects its average accounts receivable 5 times per year. This suggests the company collects its receivables every 73 days on average (365/5).

4.4. Days Sales Outstanding (DSO)

Formula: DSO = (Average Accounts Receivable / Net Credit Sales) × 365

Detailed Explanation: Days Sales Outstanding represents the average number of days it takes for a company to collect payment after a sale has been made. It's the inverse of the Receivables Turnover Ratio, expressed in days.

Implications:

- Increase:
  - Longer time to collect payments
  - Potential cash flow issues and higher working capital requirements
  - May indicate looser credit policies or collection problems
- Decrease:

        - Faster collection of payments
        - Improved cash flow and lower working capital requirements
        - May indicate stricter credit policies or improved collection practices

Analyst's Takeaway:

- High DSO:
    - Possible collection issues or overly lenient credit terms
    - Higher risk of bad debts
    - Need to examine credit policies and collection practices
- Low DSO:
    - Efficient collection practices
    - Better cash flow management
    - Need to ensure it's not due to overly strict credit policies
- Should be compared to the company's credit terms and industry averages

Example: Average Accounts Receivable = ₹100,000; Net Credit Sales = ₹500,000 DSO = (100,000 / 500,000) × 365 = 73 days

A DSO of 73 days means it takes an average of 73 days to collect payment after a sale. Whether this is good or bad depends on the industry norms and the company's credit policies.

4.5. Payables Turnover Ratio

Formula: Payables Turnover Ratio = Cost of Goods Sold / Average Accounts Payable

Detailed Explanation: The Payables Turnover Ratio measures how many times a company pays off its suppliers during a period. It indicates how quickly a company pays its bills and can provide insights into its cash management and relationships with suppliers.

Implications:

- Increase:
    - Faster payment to suppliers
    - May indicate good liquidity but potentially inefficient use of cash
    - Could lead to better relationships with suppliers and possible discounts
- Decrease:
    - Slower payment to suppliers
    - May indicate cash flow issues or strategic cash management
    - Could strain relationships with suppliers if too low

Analyst's Takeaway:

- High ratio:
    - Quick payment of bills, which could be good for supplier relationships

        - May indicate strong liquidity but possibly inefficient cash use
        - Need to consider if early payment discounts justify quick payments
- Low ratio:
    - Slower payment, which could improve working capital but strain supplier relations
    - May indicate cash flow issues or deliberate cash retention strategy
    - Need to ensure it's not damaging supplier relationships or company reputation

Example: Cost of Goods Sold = ₹400,000; Average Accounts Payable = ₹80,000 Payables Turnover Ratio = 400,000 / 80,000 = 5

A payables turnover ratio of 5 indicates that the company pays off its average accounts payable 5 times per year, or roughly every 73 days (365/5).

4.6. Days Payable Outstanding (DPO)

Formula: DPO = (Average Accounts Payable / Cost of Goods Sold) × 365

Detailed Explanation: Days Payable Outstanding represents the average number of days a company takes to pay its suppliers. It's the inverse of the Payables Turnover Ratio, expressed in days.

Implications:

- Increase:
    - Longer time to pay suppliers
    - Improved working capital management but potential strain on supplier relationships
    - May indicate stronger negotiating position or cash flow issues
- Decrease:
    - Faster payment to suppliers
    - Potential for better supplier relationships but less efficient working capital management
    - May indicate weaker negotiating position or excess cash

Analyst's Takeaway:

- High DPO:
    - Better working capital management
    - Need to ensure it's not damaging supplier relationships
    - Could indicate strong market position or cash flow problems
- Low DPO:
    - Potentially good supplier relationships
    - Less efficient working capital management
    - Could indicate weak market position or excess cash
- Should be compared to industry norms and analyzed alongside DSO and DIO

Example: Average Accounts Payable = ₹80,000; Cost of Goods Sold = ₹400,000 DPO = (80,000 / 400,000) × 365 = 73 days

A DPO of 73 days means the company takes an average of 73 days to pay its suppliers. This should be compared to the payment terms offered by suppliers and industry norms.

4.7. Asset Turnover Ratio

Formula: Asset Turnover Ratio = Revenue / Average Total Assets

Detailed Explanation: The Asset Turnover Ratio measures how efficiently a company uses its assets to generate sales. It indicates the amount of sales generated for every rupee in assets.

Implications:

- Increase:
    - More efficient use of assets in generating sales
    - Potentially higher profitability
    - May indicate improved operational efficiency
- Decrease:
    - Less efficient use of assets
    - Potentially lower profitability
    - May indicate overcapitalization or declining sales

Analyst's Takeaway:

- High ratio:
    - Efficient use of assets in generating sales
    - May indicate a capital-light business model
    - Need to ensure quality and customer satisfaction aren't compromised
- Low ratio:
    - Potential inefficiencies in asset utilization
    - May indicate a capital-intensive industry or overcapitalization
    - Need to examine reasons for low asset productivity
- Varies significantly by industry; capital-intensive industries typically have lower ratios

Example: Revenue = ₹500,000; Average Total Assets = ₹400,000 Asset Turnover Ratio = 500,000 / 400,000 = 1.25

An asset turnover ratio of 1.25 means the company generates ₹1.25 in sales for every ₹1 in assets. This suggests relatively efficient asset utilization, but interpretation depends on industry norms.

4.8. Fixed Asset Turnover Ratio

Formula: Fixed Asset Turnover Ratio = Revenue / Net Fixed Assets

Detailed Explanation: The Fixed Asset Turnover Ratio measures how efficiently a company uses its fixed assets (like property, plant, and equipment) to generate sales. It's particularly useful for capital-intensive industries.

Implications:

- Increase:
    - More efficient use of fixed assets
    - May indicate better capacity utilization or asset management
    - Potentially higher returns on capital investments
- Decrease:
    - Less efficient use of fixed assets
    - May indicate overcapacity or declining sales
    - Potentially lower returns on capital investments

Analyst's Takeaway:

- High ratio:
    - Efficient use of fixed assets
    - May indicate good return on capital expenditures
    - Need to ensure maintenance isn't being neglected
- Low ratio:
    - Potential inefficiencies in fixed asset utilization
    - May indicate overcapacity or need for asset modernization
    - Need to examine capacity utilization and market demand
- Should be compared to industry peers and analyzed over time

Example: Revenue = ₹500,000; Net Fixed Assets = ₹250,000 Fixed Asset Turnover Ratio = 500,000 / 250,000 = 2

A fixed asset turnover ratio of 2 means the company generates ₹2 in sales for every ₹1 of fixed assets. This suggests good utilization of fixed assets, but interpretation depends on the industry and the company's growth stage.

4.9. Working Capital Turnover Ratio

Formula: Working Capital Turnover Ratio = Revenue / Average Working Capital

Detailed Explanation: The Working Capital Turnover Ratio measures how efficiently a company uses its working capital to generate sales. Working capital is the difference between current assets and current liabilities.

Implications:

- Increase :
  - More efficient use of working capital
  - May indicate improved operational efficiency
  - Could suggest better management of inventory, receivables, and payables
- Decrease:
  - Less efficient use of working capital
  - May indicate issues with inventory management, collection, or payment practices
  - Could suggest declining sales or overinvestment in working capital

Analyst's Takeaway:

- High ratio:
  - Efficient use of working capital
  - May indicate good operational management
  - Need to ensure it's not due to underinvestment in working capital
- Low ratio:
  - Potential inefficiencies in working capital management
  - May indicate overinvestment in inventory or lenient credit policies
  - Need to examine each component of working capital
- Negative ratio (due to negative working capital) requires careful analysis of the business model

Example: Revenue = ₹500,000; Average Working Capital = ₹100,000 Working Capital Turnover Ratio = 500,000 / 100,000 = 5

A working capital turnover ratio of 5 means the company generates ₹5 in sales for every ₹1 of working capital. This suggests efficient use of working capital, but should be compared to industry norms.

4.10. Cash Conversion Cycle (CCC)

Formula: CCC = DIO + DSO - DPO

Detailed Explanation: The Cash Conversion Cycle measures how long it takes for a company to convert its investments in inventory and other resources into cash flows from sales. It combines the three activity ratios (DIO, DSO, and DPO) to give a comprehensive view of working capital management.

Implications:

- Increase:
  - Longer time to convert investments into cash

    - Higher working capital requirements
    - May indicate inefficiencies in inventory, collection, or payment processes
- Decrease:
    - Shorter time to convert investments into cash
    - Lower working capital requirements
    - May indicate improved efficiency in operations and working capital management

Analyst's Takeaway:

- Long CCC:
    - Higher working capital needs and potentially lower profitability
    - May indicate issues in inventory management, collections, or supplier negotiations
    - Need to examine each component (DIO, DSO, DPO) for improvement opportunities
- Short CCC:
    - Efficient working capital management
    - May indicate strong market position or excellent operational management
    - Need to ensure relationships with customers and suppliers aren't strained
- Negative CCC can be very positive but may not be sustainable long-term

Example: DIO = 50 days; DSO = 30 days; DPO = 40 days CCC = 50 + 30 - 40 = 40 days

A CCC of 40 days means it takes 40 days to convert investments in inventory and other resources into cash flows from sales. This should be compared to industry peers and analyzed over time.

4.11. Operating Cycle

Formula: Operating Cycle = DIO + DSO Detailed Explanation: The Operating Cycle measures the

average time (in days) it takes for a
company to convert its inventory into cash through sales. It combines the Days Inventory Outstanding (DIO) and Days Sales Outstanding (DSO) to provide a comprehensive view of the company's inventory management and collection efficiency.

Implications:

Increase:
- Longer time to convert inventory into cash
- Higher working capital requirements
- May indicate inefficiencies in inventory management or collection processes
- Potential cash flow pressures

Decrease:

-Shorter time to convert inventory into cash
-Lower working capital requirements
-May indicate improved efficiency in inventory turnover and receivables collection
-Potential for better cash flow management

Analyst's Takeaway:

-Long Operating Cycle:
-Higher working capital needs
-May indicate issues in inventory management or credit policies
-Need to examine both inventory and receivables processes for improvement opportunities
-Could lead to cash flow challenges if not managed properly
-Short Operating Cycle:
-Efficient inventory and receivables management
-Lower working capital requirements
-Potentially stronger cash flow position
-Need to ensure that rapid turnover isn't leading to stockouts or overly strict credit terms
-Should be compared to the Cash Conversion Cycle to understand the impact of payables management
-Industry comparisons are crucial as optimal cycle length can vary significantly between sectors

Example: DIO = 60 days; DSO = 30 days Operating Cycle = 60 + 30 = 90 days

An Operating Cycle of 90 days means it takes the company an average of 90 days to convert its inventory into cash from sales. This includes 60 days to sell the inventory and an additional 30 days to collect payment from customers.

5. Valuation Ratios

Valuation ratios provide insights into the market value of a company's stock relative to various financial metrics. These ratios are crucial for investors and analysts to assess whether a stock is overvalued, undervalued, or fairly priced. They help in comparing companies within the same industry and across different sectors.

5.1. Price-to-Earnings (P/E) Ratio

Formula: P/E Ratio = Market Price per Share / Earnings per Share (EPS)

Detailed Explanation: The P/E Ratio is one of the most widely used valuation metrics. It shows how much investors are willing to pay per dollar of earnings. A high P/E could indicate that investors expect higher earnings growth in the future compared to companies with a lower P/E.

Implications:

- High P/E:
    - Investors expect high earnings growth
    - Stock might be overvalued
    - Typical for growth stocks
- Low P/E:
    - Stock might be undervalued
    - Company might have poor growth prospects
    - Typical for value stocks

Analyst's Takeaway:

- Compare P/E to industry average and historical P/E of the company
- Consider the company's growth prospects and risk profile
- A very high P/E might indicate a stock bubble or unrealistic expectations

Example: Market Price per Share = ₹50; EPS = ₹5 P/E Ratio = 50 / 5 = 10

A P/E ratio of 10 means investors are willing to pay ₹10 for every ₹1 of earnings the company generates.

5.2. Price-to-Book (P/B) Ratio

Formula: P/B Ratio = Market Price per Share / Book Value per Share

Detailed Explanation: The P/B Ratio compares a company's market value to its book value. It's useful for valuing capital-intensive businesses and financial institutions. A lower P/B ratio could indicate an undervalued stock, but it could also suggest fundamental problems with the company.

Implications:

- High P/B :
  - Market values the company more than its stated book value
  - Might indicate an overvalued stock or high growth expectations
- Low P/B:
  - Potential undervaluation
  - Might indicate fundamental problems with the company

Analyst's Takeaway:

- Useful for companies with significant tangible assets
- Consider the quality of the company's assets and ROE
- Industries with high intellectual capital might consistently trade at high P/B ratios

Example: Market Price per Share = ₹50; Book Value per Share = ₹25 P/B Ratio = 50 / 25 = 2

A P/B ratio of 2 means the stock is trading at twice its book value.

5.3. Price-to-Sales (P/S) Ratio

Formula: P/S Ratio = Market Capitalization / Revenue

Detailed Explanation: The P/S Ratio compares a company's market capitalization to its revenue. It's particularly useful for valuing growth companies that may not yet be profitable. A lower P/S ratio is generally considered better, indicating the stock is undervalued.

Implications:

- High P/S:
  - Investors are paying more for each unit of sales
  - Might indicate overvaluation or high growth expectations
- Low P/S:
  - Might indicate undervaluation
  - Could suggest poor growth prospects or industry challenges

Analyst's Takeaway:

- Useful for comparing companies in the same industry
- Consider the company's profit margins and growth rate
- Can be misleading for companies with different profit margins

Example: Market Capitalization = ₹1,000,000; Revenue = ₹500,000 P/S Ratio = 1,000,000 / 500,000 = 2

A P/S ratio of 2 means investors are paying ₹2 for every ₹1 of sales the company generates.

5.4. Price-to-Cash Flow (P/CF) Ratio

Formula: P/CF Ratio = Market Price per Share / Cash Flow per Share

Detailed Explanation: The P/CF Ratio compares a company's market value to its operating cash flow. It's considered by some to be a more reliable measure than P/E as cash flow is less susceptible to accounting manipulations.

Implications:

- High P/CF:
    - Investors are paying more for each unit of cash flow
    - Might indicate overvaluation or expectations of high future cash flows
- Low P/CF:
    - Might indicate undervaluation
    - Could suggest poor cash flow growth prospects

Analyst's Takeaway:

- Useful for companies with high non-cash expenses
- Consider the company's capital expenditure requirements
- Compare with industry averages and historical ratios

Example: Market Price per Share = ₹50; Cash Flow per Share = ₹8 P/CF Ratio = 50 / 8 = 6.25

A P/CF ratio of 6.25 means investors are paying ₹6.25 for every ₹1 of cash flow the company generates.

5.5. Dividend Yield

Formula: Dividend Yield = (Annual Dividends per Share / Market Price per Share) * 100

Detailed Explanation: Dividend Yield represents the dividend income per share as a percentage of the share price. It's particularly important for income-focused investors. A high dividend yield can be attractive, but it might also indicate risk if it's unsustainably high.

Implications:

- High Yield:
    - Attractive for income-focused investors
    - Might indicate undervaluation or high risk
- Low Yield:

    - Might indicate overvaluation
    - Could suggest company is reinvesting more in growth

Analyst's Takeaway:

- Consider the sustainability of the dividend
- Evaluate the company's payout ratio and earnings growth
- High yields might indicate high risk; very low yields might suggest better growth opportunities

Example: Annual Dividends per Share = ₹2; Market Price per Share = ₹50 Dividend Yield = (2 / 50) * 100 = 4%

A dividend yield of 4% means investors are receiving annual dividends equal to 4% of the current share price.

5.6. Enterprise Value to EBITDA (EV/EBITDA) Ratio

Formula: EV/EBITDA Ratio = Enterprise Value / EBITDA

Detailed Explanation: The EV/EBITDA ratio compares the total value of a company (including debt and excluding cash) to its earnings before interest, taxes, depreciation, and amortization. It's considered a more comprehensive measure than P/E as it accounts for debt.

Implications:

- High EV/EBITDA:
    - Company might be overvalued
    - Could indicate high growth expectations
- Low EV/EBITDA:
    - Company might be undervalued
    - Could suggest poor growth prospects or industry challenges

Analyst's Takeaway:

- Useful for comparing companies with different capital structures
- Consider the company's growth rate and risk profile
- Often used in mergers and acquisitions valuation

Example: Enterprise Value = ₹1,200,000; EBITDA = ₹200,000 EV/EBITDA Ratio = 1,200,000 / 200,000 = 6

An EV/EBITDA ratio of 6 means the company is valued at 6 times its EBITDA.

5.7. Enterprise Value to Sales (EV/Sales) Ratio

Formula: EV/Sales Ratio = Enterprise Value / Revenue

Detailed Explanation: The EV/Sales ratio compares a company's enterprise value to its revenue. Like P/S, it's useful for valuing companies that aren't yet profitable, but it also accounts for debt and cash levels.

Implications:

- High EV/Sales:
  - Investors are paying more for each unit of sales
  - Might indicate overvaluation or high growth expectations
- Low EV/Sales:
  - Might indicate undervaluation
  - Could suggest poor growth prospects or industry challenges

Analyst's Takeaway:

- Useful for comparing companies with different capital structures
- Consider the company's profit margins and growth rate
- Often used in conjunction with other valuation metrics

Example: Enterprise Value = ₹1,200,000; Revenue = ₹500,000 EV/Sales Ratio = 1,200,000 / 500,000 = 2.4

An EV/Sales ratio of 2.4 means the company is valued at 2.4 times its annual revenue.

5.8. Price-to-Free Cash Flow (P/FCF) Ratio

Formula: P/FCF Ratio = Market Price per Share / Free Cash Flow per Share

Detailed Explanation: The P/FCF ratio compares a company's market value to its free cash flow. Free cash flow represents the cash a company generates after accounting for cash outflows to support operations and maintain capital assets. This ratio is considered by some to be a more accurate valuation metric than P/E or P/CF.

Implications:

- High P/FCF:
  - Investors are paying more for each unit of free cash flow
  - Might indicate overvaluation or expectations of high future free cash flows
- Low P/FCF:
  - Might indicate undervaluation
  - Could suggest poor free cash flow growth prospects

Analyst's Takeaway:

- Useful for assessing a company's ability to generate cash for shareholders
- Consider the company's capital expenditure requirements and growth investments
- Compare with industry averages and historical ratios

Example: Market Price per Share = ₹50; Free Cash Flow per Share = ₹5 P/FCF Ratio = 50 / 5 = 10

A P/FCF ratio of 10 means investors are paying ₹10 for every ₹1 of free cash flow the company generates.

6. Market Performance Ratios

Market Performance Ratios help assess the performance of a company's stock in the market. These ratios are crucial for investors and analysts to evaluate how well a company is performing in terms of generating returns for its shareholders. They provide insights into earnings, dividends, and the overall market perception of the company.

6.1. Earnings per Share (EPS)

Formula: EPS = Net Income / Number of Outstanding Shares

Detailed Explanation: EPS represents the portion of a company's profit allocated to each outstanding share of common stock. It's a key indicator of a company's profitability and is often used as a basis for other valuation metrics.

Implications:

- Increase:
    - Improved profitability or reduced number of outstanding shares
    - Generally viewed positively by investors
- Decrease:
    - Reduced profitability or increased number of outstanding shares
    - May lead to negative market sentiment

Analyst's Takeaway:

- Consider both basic and diluted EPS
- Analyze EPS trend over time
- Compare with industry peers
- Be aware of one-time events that might skew EPS

Example: Net Income = ₹500,000; Number of Outstanding Shares = 100,000 EPS = 500,000 / 100,000 = ₹5 per share

An EPS of ₹5 means the company earned ₹5 for each outstanding share of common stock.

6.2. Dividend Payout Ratio

Formula: Dividend Payout Ratio = Dividends per Share / Earnings per Share (EPS)

Detailed Explanation: The Dividend Payout Ratio shows the proportion of earnings paid out as dividends to shareholders. It indicates how much of a company's earnings are returned to shareholders versus being reinvested in the company.

Implications:

- High Ratio:
    - Larger portion of earnings paid as dividends
    - May indicate limited growth opportunities or mature company
- Low Ratio:
    - Smaller portion of earnings paid as dividends
    - May indicate growth opportunities or need to retain earnings

Analyst's Takeaway:

- Consider the company's growth stage and industry norms
- Evaluate sustainability of dividend payments
- Analyze in conjunction with the company's growth strategy

Example: Dividends per Share = ₹2; EPS = ₹5 Dividend Payout Ratio = 2 / 5 = 0.4 or 40%

A payout ratio of 40% means the company is paying out 40% of its earnings as dividends and retaining 60%.

6.3. Retention Ratio (Plowback Ratio)

Formula: Retention Ratio = 1 - Dividend Payout Ratio

Detailed Explanation: The Retention Ratio, also known as the Plowback Ratio, represents the proportion of earnings retained by the company for reinvestment or debt repayment. It's the opposite of the Dividend Payout Ratio.

Implications:

- High Ratio:
    - Larger portion of earnings retained for reinvestment
    - May indicate growth opportunities or need for internal financing
- Low Ratio:
    - Smaller portion of earnings retained
    - May indicate limited growth opportunities or focus on shareholder returns

Analyst's Takeaway:

- Consider the company's growth stage and investment opportunities
- Analyze in conjunction with Return on Retained Earnings (RORE)
- Compare with industry peers and historical trends

Example: Dividend Payout Ratio = 40% Retention Ratio = 1 - 0.4 = 0.6 or 60%

A retention ratio of 60% means the company is retaining 60% of its earnings for reinvestment.

6.4. Book Value per Share

Formula: Book Value per Share = (Total Equity - Preferred Equity) / Number of Outstanding Shares

Detailed Explanation: Book Value per Share represents the per-share value of a company's net assets (total assets minus total liabilities). It's often used as a rough estimate of the company's value if it were to be liquidated.

Implications:

- Increase:
  - May indicate improved financial health or profitability
  - Could result from share buybacks
- Decrease:
  - May indicate deteriorating financial health or large dividend payments
  - Could result from share issuances

Analyst's Takeaway:

- Compare with market price (P/B ratio)
- Consider the nature of the company's assets
- Be aware of limitations for companies with significant intangible assets

Example: Total Equity = ₹1,000,000; Preferred Equity = ₹200,000; Outstanding Shares = 100,000 Book Value per Share = (1,000,000 - 200,000) / 100,000 = ₹8 per share

A book value of ₹8 per share means each share represents ₹8 of the company's net asset value.

6.5. Market-to-Book Ratio

Formula: Market-to-Book Ratio = Market Price per Share / Book Value per Share

Detailed Explanation: The Market-to-Book Ratio compares a company's market value to its book value. It's similar to the P/B ratio and indicates whether a stock is overvalued or undervalued relative to its book value.

Implications:

- Ratio > 1:
  - Market value exceeds book value
  - May indicate overvaluation or growth expectations
- Ratio < 1:
  - Market value is less than book value

    - May indicate undervaluation or fundamental issues

Analyst's Takeaway:

- Consider industry norms and company's growth prospects
- Be aware of limitations for companies with significant intangible assets
- Analyze alongside other valuation metrics

Example: Market Price per Share = ₹50; Book Value per Share = ₹40 Market-to-Book Ratio = 50 / 40 = 1.25

A market-to-book ratio of 1.25 means the stock is trading at 1.25 times its book value.

6.6. Dividend Cover Ratio

Formula: Dividend Cover Ratio = EPS / Dividends per Share

Detailed Explanation: The Dividend Cover Ratio, which is the inverse of the Dividend Payout Ratio, indicates how many times a company can pay its current dividend with its earnings. It's a measure of dividend sustainability.

Implications:

- High Ratio:
    - Dividends are well covered by earnings
    - Indicates dividend sustainability and potential for increases
- Low Ratio:
    - Dividends may not be well covered by earnings
    - May indicate risk of dividend cut

Analyst's Takeaway:

- Consider the company's dividend policy and growth stage
- Analyze trend over time
- Be aware of industry norms and company-specific factors

Example: EPS = ₹5; Dividends per Share = ₹2 Dividend Cover Ratio = 5 / 2 = 2.5

A dividend cover ratio of 2.5 means the company's earnings could cover its current dividend 2.5 times over.

6.7. Dividend Growth Rate

Formula: There's no standard formula as this is typically estimated based on historical data or future projections.

Detailed Explanation: The Dividend Growth Rate represents the annualized percentage change in a company's dividend over a specific period. It's crucial for income-focused investors and for assessing a company's ability to consistently increase shareholder returns.

Implications:

- High Growth Rate:
  - May indicate strong financial health and optimistic outlook
  - Attractive for income-growth investors
- Low or Negative Growth Rate:
  - May indicate financial struggles or change in dividend policy
  - Could be concerning for income-focused investors

Analyst's Takeaway:

- Consider sustainability of growth rate
- Analyze alongside payout ratio and earnings growth
- Be aware of company's lifecycle stage and industry trends

Example: If a company increased its annual dividend from ₹2 to ₹2.20 over the past year:
Dividend Growth Rate = (2.20 - 2) / 2 = 0.1 or 10%

A 10% dividend growth rate means the company increased its dividend by 10% over the past year.

6.8. Shareholder Yield

Formula: Shareholder Yield = (Dividends Paid + Share Buybacks - Share Issuance) / Market Capitalization

Detailed Explanation: Shareholder Yield provides a more comprehensive view of the value returned to shareholders than dividend yield alone. It includes dividends, share buybacks, and accounts for dilution through share issuance.

Implications:

- High Yield:
  - Indicates significant value return to shareholders
  - May be attractive for value-focused investors
- Low Yield:
  - Indicates less value returned to shareholders
  - May suggest reinvestment in growth or cash conservation

Analyst's Takeaway:

- Consider company's capital allocation strategy
- Analyze trend over time and compare with peers
- Be aware of sustainability and impact on company's financial position

Example: Dividends Paid = ₹50,000; Share Buybacks = ₹30,000; Share Issuance = ₹10,000; Market Cap = ₹1,000,000 Shareholder Yield = (50,000 + 30,000 - 10,000) / 1,000,000 = 0.07 or 7%

A shareholder yield of 7% indicates that the company returned value equivalent to 7% of its market cap to shareholders through dividends and net share repurchases.

These market performance ratios provide various perspectives on how a company is performing in terms of shareholder returns and market valuation. They are most useful when analyzed together, compared with industry peers, and viewed in the context of the company's overall financial health and strategy. It's important to consider these ratios alongside other financial metrics and qualitative factors for a comprehensive analysis.