Liquidity ratios determine how quickly a company can convert its assets to cash in order to meet its obligations. These ratios focus on the possibility of liquidation by measuring the current assets available to meet current obligations. Liquidity is critical for certain sectors like airlines, which may have wide fluctuations in demand and revenue streams.

**Current Ratio:**
This ratio measures a company’s ability to service its current obligations. The higher the Current Ratio, the greater the ‘cushion’ between current obligations and a firm’s ability to pay them. However, the composition and quality of current assets are also critical in analyzing an individual firm’s liquidity.

**How to calculate:**
Divide total current assets by total current liabilities.

**Quick Ratio:**
This reflects the degree to which a company’s current liabilities are covered by its most liquid current assets. Inventory and other assets that cannot be easily converted to cash are removed from the calculation. Also known as the Acid Test, this is a stricter measure of liquidity when compared to the Current Ratio.

**How to calculate:**
Add cash and trade receivables net and divide by total current liabilities.

**Sales/Receivables (Trade Receivables Turnover):**
This is a ratio of the number of times trade receivables turn over during a year. The higher the turnover of receivables, the shorter the time between sale and cash collection.

**How to calculate:**
Divide net sales by trade receivables net.

**Days’ Receivables:**
This expresses the average number of days that receivables are outstanding. Generally, the greater number of days outstanding, the greater the probability of delinquencies. Also, a comparison of a daily receivables may indicate the extent of a company’s control over credit and collections.

**How to calculate:**
Divide 365 by the Trade Receivables Turnover Ratio.

**Cost of Sales / Inventory (Inventory Turnover):**
This ratio measures the number of times inventory is turned over during the year. High inventory turnover can indicate greater liquidity or superior merchandising. Conversely, it can indicate a shortage of needed inventory for sales. Low inventory turnover can indicate poor liquidity, overstocking or obsolescence. On the positive side, it can indicate a planned inventory buildup in the case of material shortages.
Financial Ratio Definitions

**Liquidity ratios continued**

How to calculate:
Divide cost of sales by the year-end remaining inventory.

Cost of Sales / Inventory

**Days’ Inventory:**
This ratio measures the average length of time units are in inventory.
How to calculate:
Divide 365 by the Inventory Turnover Ratio.

365 / Inventory Turnover Ratio

**Cost of Sales / Payables (Payables Turnover):**
The cost of sales/payables ratio measures the number of times trade payables turns over during the year. The higher the payables turnover, the shorter the time between purchase and payment. If a company’s payables turn more slowly when compared to its industry, then the company may be experiencing cash shortages, disputing invoices with suppliers, extended terms or deliberately expanding its trade credit.
How to calculate:
Divide cost of sales by trade payables.

**Days’ Payable:**
This ratio measures the average length of time trade debt is outstanding.
How to calculate:
Divide the Payables Turnover Ratio into 365 days.

Payables Turnover Ratio / 365

**Sales/Working Capital:**
This ratio reflects the ability to finance current operations, and, is a measure of the margin of protection for current creditors. This ratio also indicates how efficiently working capital is being used. A low ratio (close to zero) may indicate an inefficient use of working capital. A high ratio (high positive or high negative) often signifies overtrading, creating a vulnerable position for creditors.
How to calculate:
Divide net sales by net working capital.

Net Sales / Net Working Capital

**Coverage Ratios**

Coverage ratios measure a company’s ability to service its debt. In other words: how well does the flow of a company’s funds cover its short-term financial obligations? In contrast to liquidity ratios that focus on the possibility of liquidation, coverage ratios seek to provide lenders a comfort level based on the belief the firm will remain a viable enterprise.

**Earnings Before Interest & Taxes (EBIT) / Interest:**
This ratio measures a company’s ability to meet interest payments. A high ratio may indicate that a borrower can easily meet the interest obligations of a loan. This ratio also indicates a firm’s capacity to take on additional debt.
How to Calculate:
Divide earnings before interest and taxes (EBIT) by annual interest expense.

EBIT / Annual Interest Expense

**Net Profit + Depreciation, Depletion, Amortization / Current Portion of Long Term Debt:**
This ratio reflects how well cash flow from operations covers current maturities. It also measures a company’s ability to take on...
Financial Ratio Definitions

**Leverage Ratios**

These ratios measure the protection a company's assets provide for the debt held by its creditors. Highly leveraged firms are companies with heavy debt in relation to their net worth and are more vulnerable to business downturns than those with lower debt-to-worth positions.

- **Fixed Assets / Net Worth:**
  This ratio measures how much capital has been invested in fixed assets, including manufacturing plants and equipment. A lower ratio indicates a proportionately smaller investment in fixed assets in relation to net worth and a better ‘cushion’ for creditors in the case of liquidation. A higher ratio would indicate the opposite situation.
  
  **How to Calculate:**
  Divide net fixed assets by tangible net worth.

- **Debt / Net Worth:**
  This ratio expresses the relationship between capital contributed by creditors and that contributed by owners. It shows how much protection the owners are providing creditors. The higher the ratio, the greater the risk being assumed by creditors.
  
  **How to Calculate:**
  Divide total liabilities by tangible net worth.

**Operating Ratios**

Operating ratios are designed to assist in the evaluation of management performance.

- **Profit before Taxes / Net Worth %:**
  This ratio expresses the rate of return on tangible capital employed. While it can serve as an indicator of management performance, it is normally used in conjunction with other ratios. For example, a high return on this ratio could actually point to an undercapitalized firm. Conversely, a low return is usually viewed as an indicator of inefficient management performance, but could actually reflect a highly capitalized and conservatively operated business.
  
  **How to Calculate:**
  Divide profit before taxes by tangible net worth. Then, multiply by 100.

- **Profit before Taxes / Total Assets %:**
  This ratio expresses the pre-tax return on total assets and measures the effectiveness of management in employing the resources available to it.
  
  **How to Calculate:**
  Divide profit before taxes by total assets and multiply by 100.
Financial Ratio Definitions

Operating Ratios continued

Sales / Net Fixed Assets:
This ratio is a measure of the productive use of a company’s fixed assets. Fixed assets refers to the long-term assets used in a business that are classified as property, plant and equipment. Net sales is total revenue, less the cost of sales returns, allowances, and discounts.
How to calculate:
Divide net sales by net fixed assets (net of accumulated depreciation).

Sales / Total Assets (Asset Turnover):
This ratio measures a company’s ability to generate sales in relation to total assets. It should be used only to compare firms within a specific industry, and, in conjunction with other operating ratios, to determine the effective employment of assets.
How to calculate:
Divide net sales by total assets.

Cash Flow & Debt Services Ratios (% of sales)

Cash Flow and debt services ratios provide an indication of a company’s ability to cover total debt with its yearly cash flow from operations. The higher the percentage ratio, the better the company’s ability to carry its total debt. All the following figures are expressed as a percentage of net sales.

Cash from Trading
This ratio measures the money left over after a company produces its goods for sale. It is the portion of the present year’s sales collected in the present year, plus any amounts from previous years’ sales collected during the year, minus the cash expended during the present year to produce goods for sale or to acquire merchandise.
How to calculate:
Subtract cash production costs from cash from sales.

Cash after Operations:
This ratio shows how efficiently the industry operates. It is the cash derived from trading minus the actual cash spent during the present year for selling, general and administrative expenses.

Net Cash after Operations:
This ratio reflects the amount of cash available for servicing interest on bank debt. In other words, it adjusts the cash after operations to reflect net cash outflows or inflows arising from changes in income taxes and miscellaneous assets and liabilities.
How to calculate:
Add changes in income taxes to changes in miscellaneous assets and liabilities. Then, subtract from cash after operations.

Cash after Debt Amortization:
The cash after debt amortization figure measures whether a company has generated sufficient cash from its internal operations to meet all its...
Financial Ratio Definitions

Cash Flow & Debt Services Ratios (% of sales) continued

obligations to bank lenders. If the figure is positive, the company has enough cash to meet its obligation to lenders. If the figure is negative, the company must resort to sources of financing to meet obligations as well as to make capital expenditure payments.

How to calculate:
Subtract the current maturities of debt outstanding at the end of the previous year from the net cash income.

Debt Service P&I Coverage:
This ratio is a measure of a company’s ability to service its debt with internally generated cash flow. It helps you determine whether a business can meet all its operating needs and has sufficient funds remaining to meet principal and interest debt-service requirements and to cover dividends. If the ratio is less than 1:1, this indicates a company must borrow funds to meet some or all of its financing obligations.

How to calculate:
Divide net cash after operations by the sum of current debt obligations.

Interest Coverage (Operating Cash):
This ratio is a measure of a company’s ability to service debt by generating cash to meet interest payments. It is an alternative to the earnings coverage return. This ratio also serves as an indicator of a company’s capacity to incur additional debt.

How to calculate:
Divide net cash after operations by cash and noncash interest expenses.

Assets (percent total of assets)

Cash & Equivalents: Currency, coins, checks received but not yet deposited, checking accounts, petty cash, savings accounts, money market accounts, and short-term, highly liquid investments.

Trade Receivables (net): The amount billed for goods upon delivery minus allowance for doubtful accounts.

Inventory: The merchandise purchased by merchandisers (retailers, wholesalers, distributors) for the purpose of being sold to customers.

All Other Current Assets: A general classification of "current asset" that does not include the following major current assets: cash, marketable securities, accounts receivable, inventory and prepaid expenses.

Total Current Assets: Cash and any other company asset that will be turning to cash within one year from the date shown in the heading of the company’s balance sheet, including currency, checking accounts, petty cash, temporary investments, accounts receivable, inventory, supplies, and prepaid expenses. (Sum of all above listed assets.)

Fixed Assets (net): The purchase price of all fixed assets (land, buildings, equipment, machinery, vehicles) less accumulated depreciation.

Intangibles (net): Gross intangible assets, reduced by accumulated intangible amortization. Intangibles (net) is used when the company does not provide intangibles; gross intangibles consist of patents, copyrights, franchises, goodwill, trademarks, trade names, secret processes, and organization costs.

All Non-Current Assets: A long-term asset, which is not likely to turn to unrestricted
Financial Ratio Definitions

**Assets (percent total of assets) continued**
cash within one year of the balance sheet date. Examples are investments, property, plant and equipment as well as tangible and intangible assets.

**Total Assets:** The total amount of assets owned by a person or entity, including cash, accounts receivable, inventory, fixed assets, intangible assets and other assets.

**Liabilities (percent of total liabilities)**

- **Notes Payable-Short Term:** Short term obligations, including bank and commercial paper.
- **Current Maturities L/T/D:** The portion of long term obligations that is due within the next fiscal year.
- **Trade Payables:** The amount owed for goods delivered or services consumed.
- **Income Taxes Payable:** Income taxes owed, including current portion of deferred taxes.
- **All Other Current Liabilities:** A general classification of debts and obligations that are due within the next year, including bank overdrafts and accrued expenses.
- **Total Current Liabilities:** All debts or obligations that are due within the next year (The sum of all the above listed liabilities.)
- **Long Term Debt:** All senior debt (borrowed money that a company must repay before it goes out of business), which include bonds, debentures, bank debt, mortgages, deferred portions of long-term debt, and various capital lease obligations.
- **Deferred Taxes:** All deferred taxes.
- **All Other Non-Current Liabilities:** Any other various debts and/or obligations not due within the next year, including subordinated debt and liability reserves.
- **Net Worth:** Total assets minus total liabilities.
- **Total Liabilities & Net Worth $:** The sum of all debts and obligations added to net worth.

**Additional Definitions**

- **All Other Expenses (net):** Miscellaneous other income and expenses (net), such as interest expense and income, expenses not included in selling, general & administrative expenses, dividends received and miscellaneous income.
- **Amortization:** Cost allocation accounting portion of debt paid off on a fixed repayment schedule.
- **Depletion:** Cost allocation accounting for the extraction of natural resources, such as timber, minerals and oil from the earth.
- **Depreciation:** Cost allocation accounting for the decreasing value of a tangible long-term asset.
- **Earnings before Interest and Taxes (EBIT):** Revenue minus expenses excluding tax and interest expenses.
- **Cash Operating Costs:** Selling, general & administrative, expenses, plus other operation expenses, plus changes in prepaid, plus change in accrued expenses, plus change in other current assets/liabilities.
- **Cash Production Costs:** Cost of sales + change in inventories + change in accounts payable.
- **Cash from sales:** Net sales + change in current receivables.
- **Cost of Sales:** Cost of product in beginning inventory plus the cost of new product minus the cost of product in ending inventory. Excludes selling, general and administrative expenses.
- **Net Cash Income:** Cash after financing costs.
- **Net Profit:** Net sales minus total expenses (including cost of goods sold, selling, general & administrative expenses and any other non-operating expenses.)
- **Net Sales:** Total sales, net of returns, allowances and discounts, if any.
Net Working Capital: Current assets minus current liabilities.
Operating Expenses: Total selling & general & administrative expenses, including depreciation, but not interest expense.
Profit before Taxes: Operating profit minus all other expenses (net).
Selling, General & Administrative Expenses: Sum of all indirect and direct selling expenses, as well as general and administrative expenses. Includes compensation and benefit costs, advertising, occupancy and operating costs of facilities and other administrative costs, but does not include those expenses attributable to Cost of Sales.
Sum of Current Debt Obligations: Interest + noncash interest + current portion of long-term debt & current portion of capital leases.
Tangible Net Worth: Total assets, minus liabilities and intangibles.