Glossary and Formulas

A-B

Accounts Payable
Includes, but is not limited to, Trade Accounts Payable and Trade Acceptances, that is, amounts owed to vendors for goods and services purchased from outside suppliers and due within the normal operating cycle of a company.

Accounts Payable/Inventory
This measure shows the proportion of total Inventories that are effectively being financed by a company's vendors through an open Accounts Payable balance.

\[
\text{Accounts Payable/Inventory} = \frac{\text{Accounts Payable}}{\text{Inventory}} \quad \text{ratio}
\]

Accounts Receivable
The balance due from a customer for goods or services sold on open account. Includes, but is not limited to, Net Trade Accounts Receivable and Net Accounts and Notes Receivable.

Accrued Expenses
Results from the use of accrual accounting procedures, wherein expenses are recognized when incurred rather than when paid, as in a cash accounting system. Includes, but is not limited to, Taxes (other than Income Taxes), Interest, Rent, Pension and Other Employee Benefits, Payrolls, Wages and Salaries, and Accrued Liabilities.

Annual Growth Rate
Plotted over a period of time, this measure defines the underlying business cycle of a given company or industry, revealing peaks, troughs, periods, and amplitudes for forecasting.

\[
\text{Annual Growth} = \frac{\text{Sum of Most Recent 4 Qtrs.' Revs.}}{\text{Sum of Year-Ago 4 Qtrs.' Revs.}} \times 100 \quad \%)
\]

Asset Turns
This asset management ratio measures the turnover of all the firm's assets.

\[
\text{Total Asset Turns} = \frac{\text{Quarterly Revenue} \times 4}{\text{Total Assets}} \quad \text{Times/Year}
\]

Average Daily Volume
In the event of stock splits, Average Shares, trading prices, and trading volumes are adjusted in proportion to the split ratio to ensure consistency in comparing market values and share-oriented data.

\[
\text{Average Daily Volume} = \frac{\text{Total Number of Shares Traded in a Month}}{22 \quad \text{(trading days/month)}}
\]

Basic Earning Power
This ratio shows the raw earning power of the firm's assets, before the influence of taxes and leverage.

\[
\text{Basic Earning Power} = \frac{\text{Qtr. Earnings Before Interest & Taxes} \times 4}{\text{Total Assets}} \quad \%
\]
Glossary and Formulas

B-C

**Book Value Per Share**
Represents the accounting value of a share of common stock. Preferred stock equity should be stated at liquidation price if other than book, because the preferred shareholders would be paid that value in the event of liquidation.

\[
\text{Book Value per Share} = \frac{\text{Shareholders' Equity}}{\text{Average Shares}} \quad \text{$/Share}
\]

**Cash Conversion Days**
Represents the length of time between actual cash expenditures to pay for productive resources and the cash receipts from the sale of products.

\[
\text{CCC} = \frac{\text{Inventory}}{\text{Quarterly Net Sales X 4}} + \text{Receivable Days} - \text{Payable Days} - \frac{\text{365}}{\text{365}}
\]

**Capital Expenditures**
Capital Expenditures represent the funds used to acquire fixed assets other than those associated with acquisitions.

**Capital Expenditures/Revenue**
Shows a firm's Capital Expenditures as a function of its Net Sales.

\[
\text{Capital Expenditures/Revenue} = \frac{\text{Capital Expenditures}}{\text{Current Quarter Net Sales X 4}}
\]

**Cash Flow**
Equals Cash Flow from Operations taken directly from the Cash Flow Statement of the company.

\[
\text{Cash Flow} = \text{Cash Flow from Operations as-reported.}
\]

**Cash & Equivalents**
Cash includes, but is not limited to, Cash, Bank Drafts, Demand Deposits, Demand Certificates of Deposit, Letters of Credit, Non-Interest Bearing Deposits, Restricted Cash, Escrow Deposits. Marketable Securities includes, but is not limited to, Commercial Paper, Certificates of Deposit, Time Certificates of Deposit, Time Deposits, Interest Bearing Deposits, Government Securities, Short Term Investments, Temporary Cash Investments.

**Cash Flow To Current Liabilities**
Indicates the degree to which a company can pay its immediate obligations through operational cash flow of the company.

\[
\text{Cash Flow/Current Liabilities} = \frac{\text{Quarterly Cash Flow X 4}}{\text{Current Liabilities}}
\]
Glossary and Formulas

C-D

Cash Flow To Total Liabilities
Indicates the degree to which a company can pay its immediate and long term obligations through operational cash flow of the company.

\[
\text{Cash Flow/Total Liabilities} = \frac{\text{Quarterly Cash Flow} \times 4}{\text{Total Liabilities}}
\]

Cash Per Share
Indicates the level of cash within the firm as a function of the average number of shares outstanding.

\[
\text{Cash per Share} = \frac{\text{Cash & Marketable Securities}}{\text{Average Shares}}
\]

Cash Ratio
Sometimes called the Liquidity Ratio, this measure shows how quickly a company could liquidate its most immediate liabilities.

\[
\text{Cash Ratio} = \frac{\text{Cash & Marketable Securities}}{\text{Current Liabilities}}
\]

COGS/Employee
This ratio shows the annualized Cost of Goods Sold (COGS) for each employee in the company.

\[
\text{COGS/Employee} = \frac{\text{Quarterly COGS} \times 4}{\text{Total Employees}}
\]

Current Assets
Those assets that can be converted to cash within 12 months. Current Assets includes Cash + Marketable Securities + Receivables + Inventories + Notes Receivable + Other Current Assets & Prepaid Expenses.

Current Liabilities
Those liabilities that must be paid within one year. Includes Short-Term Notes payable, Accounts Payable, Current Maturities of Long-Term Debt, current portion of Capital Leases, Accrued Expenses, Income Taxes, and Other Current Liabilities.

Current Ratio
Gives a view of company liquidity and is an indicator of the Short-Term Debt-paying ability of the firm.

\[
\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}
\]

Depreciation & Amortization
Depreciation & Amortization represents the process of allocating the cost of a depreciable asset to the accounting periods covered during its expected useful life to a business. It is a non-cash charge for use and obsolescence of an asset.
Glossary and Formulas

E-G

Earnings Growth
Net Income growth in % versus the prior quarterly period.

\[
\text{Earnings Growth} = \frac{\text{Current Qtr. Net Income} - \text{Prior Qtr. Net Income}}{\text{Prior Qtr. Net Income}} \times 100\%
\]

Earnings Per Share
Earnings divided by the number of Average Shares. The value used in calculations is as-reported by the company and is not a calculated value.

EPS Growth
EPS growth in % versus the prior quarterly period.

\[
\text{EPS Growth} = \frac{\text{Current Qtr. EPS} - \text{Prior Qtr. EPS}}{\text{Prior Qtr. EPS}} \times 100\%
\]

Economic Value Added
Economic Value Added (EVA) is the difference between a company's economic profit and its economic cost, expressed in $'s. As such, a company with positive EVA is said to be 'creating value'; likewise, a company with negative EVA is said to be 'destroying value'. In addition, EVA offers a unified approach to measuring performance, capital budgeting and, incentive compensation.

\[
\text{EVA} = \text{ROIC} - \text{WACC}
\]

Employees
The total number of employees as reported in their 10-K or Annual Report. Normally reported once per year, occasionally companies will disclose interim quarterly numbers.

Equity
Represents the shareholders' ownership interest in the company. Includes Preferred stock, Net Common Stock, Capital Surplus, and Retained Earnings minus Treasury Stock and Other Liabilities.

Equity Per Share
This value can be related to Share Price to determine whether the stock of a company is fairly valued based on balance sheet strength.

\[
\text{Equity per Share} = \frac{\text{Shareholders' Equity}}{\text{Average Shares}} \text{ $/Share}
\]

Free Cashflow
This measure is cash from operations minus capital expenditures, which are investments in property, plant, and equipment. The formula for calculating free cash flow is Operating Cash Flow - Capital Expenditures.

Gross Margin
Gross margin is that ratio relating Gross Profit to Net Sales.
Gross Profit

\[ \text{Gross Margin} = \frac{\text{Gross Profit}}{\text{Net Sales}} \%
\]

Gross Margin/Employee
This ratio calculates the annualized gross profit (margin) produced for each employee in the company.

\[ \text{Gross Margin/Employee} = \frac{\text{Quarterly Gross Margin} \times 4}{\text{Total Employees}} \$
\]

Gross Profit
Equals the difference between a company's Net Sales and the Cost of Goods Sold.

\[ \text{Gross Profit} = \text{Net Sales} - \text{Cost of Goods Sold}.
\]

Growth vs Year-ago Qtr.
Revenue growth in % versus the same quarterly period one year ago. This measure tends to factor out seasonal variations because the measurements are taken at the same time in the year for both quarters.

\[ \text{Growth vs Year-ago Qtr.} = \frac{\text{Current Qtr. Revenue} - \text{Year-ago Qtr. Revenue}}{\text{Year-ago Qtr. Revenue}} \%
\]

Growth vs Prior Qtr.
Revenue growth in % versus the prior quarterly period.

\[ \text{Growth vs Prior Qtr.} = \frac{\text{Current Qtr. Revenue} - \text{Prior Qtr. Revenue}}{\text{Prior Qtr. Revenue}} \%
\]

Insurance/Legal Settlements
Includes Insurance Settlements and Legal Settlements.

Interest Margin
The relationship of Interest Expense as a function of Net Sales.

\[ \text{Interest Margin} = \frac{\text{Interest Expense}}{\text{Net Sales}} \%
\]

Inventory
The balance of goods on hand. The total of Raw Materials + Work in Progress + Finished Goods.

Inventory to Revenue
Shows the Inventory level relative to Sales.

\[ \text{Inventory/Revenue} = \frac{\text{Inventory}}{\text{Net Quarterly Sales}} \text{ ratio}
\]

Inventory Turns
Shows how many times the Inventory of a firm is sold and replaced during the period.
Glossary and Formulas

I-N

Quarterly Cost of Goods Sold X 4
Inventory Turns = ----------------------------------------------- Times/Year
Quarterly Inventory

Liabilities & Equity
Liabilities And Equity must equal Total Assets. Liabilities represent claims on the assets of a company. Total Liabilities include Current Liabilities, Mortgages, Deferred Charges, Convertible Debt, Long Term Debt, Non-Current Capital Leases, and Other Long Term Liabilities. Equity includes Preferred Stock, Net Common Stock, Capital Surplus, Retained Earnings less Treasury Stock and Other Liabilities.

Long Term Debt
Represents any liability due in a year or more and includes Mortgages, Convertible Debt, Long Term Debt, and Non-Current Capital Leases.

Long Term Debt Per Share
This measure shows the degree of financial leverage under which a company operates relative to the Average Number of Shares Outstanding.

Long Term Debt per Share = Long Term Debt $/Share
Average Shares

Market Value
Market Value is the common share price of a company's stock, at any given time, times the average shares outstanding.

Market Value = Closing Stock Price X Average Shares.

Market Value to Revenue
This ratio shows a firm's Market Value as a function of its Net Sales.

Market Value
Market Value/Revenue = ---------------------------------------- ratio
Current Quarter Net Sales X 4

Merger/Restructuring Charges
Merger and Restructuring Charges are recorded in the Consolidated Statement of Income, and include incremental costs to integrate the operations of multiple corporate entities. These charges represent costs associated with merger activities and do not represent on-going costs of the fully integrated combined organization. Also included are systems integrations and related charges, and are expensed as incurred. In addition, Merger and Restructuring Charges include costs related to workforce reductions, severance costs and severance liabilities.

Net Cash Per Share
This measure indicates the Net Cash position of the company after Debt is subtracted.

Net Cash per Share = Cash & Marketable Securities - Total Debt $/Share
Average Shares

Net Margin
Tracks how the company has integrated sales efforts, prices, and costs.
Glossary and Formulas

N-O

**Net Margin**

\[ \text{Net Margin} = \frac{\text{Net Income Before Extraordinary Items}}{\text{Net Sales}} \% \]

**Net Income**

The sum remaining after all expenses have been paid or deducted.

\[ \text{Net Income} = \text{Net Income Before Extraordinary Items} \pm \text{Extraordinary Items and Discontinued Operations} \]

Note: Net Income Before Extraordinary Items = Pretax Income - Provision for Income Taxes - Minority Interest Income +/- Investment Gains/Losses +/- Other Income.

**Non-Debt Liabilities**

Total Liabilities minus interest-bearing liabilities, including all debt. Liabilities represent claims on the assets of a company. Total Liabilities include Current Liabilities, Mortgages, Deferred Charges, Convertible Debt, Long Term Debt, Non-Current Capital Leases, and Other Long Term Liabilities. Equity includes Preferred Stock, Net Common Stock, Capital Surplus, Retained Earnings less Treasury Stock and Other Liabilities.

**Non-Operating Income/Expense**

The net of all non-operating income and expenses. Includes, but is not limited to, net proceeds from dividend income, investment profits, miscellaneous other non-operating income, investment losses, foreign exchange losses, write-down of assets, plus other non-operating expenses.

**Operating Income**

Also referred to as Income Before Depreciation and Amortization, Operating Income equals gross profit less Research and Development (R&D) expenditures and Selling, General and Administrative expenses (SG&A). Representing the income due to continuing operations, it excludes one-time events like restructuring charges or sales of assets.

\[ \text{Operating Income} = \text{Gross Profit} - \text{R&D Expenditures} - \text{SG&A Expenses} \]

**Operating Income/Employee**

This ratio calculates the annualized operating income (gross profit minus SG&A and R&D) produced for each employee in the company.

\[ \text{Operating Income/Employee} = \frac{\text{Quarterly Operating Income} \times 4}{\text{Total Employees}} \$

**Operating Margin**

Reflects Operating Income as a function of Net Sales.

\[ \text{Operating Margin} = \frac{\text{Operating Income}}{\text{Net Sales}} \% \]

**Operating Profit – Recurring**

This is a calculated value which constitutes the “pure” operating profit of the company before the effects of non-recurring charges.

\[ \text{Operating Profit Recurring} = \text{Sales} - \text{Cost of Goods} - \text{SG&A} - \text{R&D} \]
Glossary and Formulas

O-P

Operating Profit
This is the operating profit that is reported by the company. This normally includes the effects of Depreciation/Amortization/Impairment Charges, Stock Based Compensation, Merger/Restructuring Charges, Insurance/Legal Settlements, and Other Operating Income/Expenses.

Other Operating Income/Expenses
May include: Provision for Bad Debts, Pre-Opening Costs, Asset Write-down, Loss (Gain) On Sale Of Assets One Time, Other Non Recurring Items.

Other Non-Operating Income/Expenses
May include: Income (Loss) On Equity Invest.
  Gain (Loss) On Sale Of Invest.
  Gain (Loss) From Sale Of Assets - Rec.
  Currency Exchange Gains (Loss)
  Other Non Operating Income (Expenses)
Plus: Non Rec Items EXCLUDED from Co's Op. Profit
  Asset Writedown
  In Process R & D Expenses
  Restructuring Charges
  Loss (Gain) On Sale Of Assets One Time
  Merger & Related Restructuring Charges
  Insurance Settlements
  Legal Settlements
  Other Non Recurring Items

Payable Days
This ratio shows the average number of days that elapse between the purchase of material and labor and payment for them.

Payable Days = \( \frac{\text{Quarterly Payables} \times 90}{\text{Quarterly Cost of Goods Sold}} \)

Payable Turns
This measure shows how many times the Accounts Payable of a firm are paid during a one year period.

Payable Turns = \( \frac{\text{Quarterly Cost of Goods Sold} \times 4}{\text{Accounts Payable}} \)

PP&E Net
These tangible assets are the physical facilities used in the operation of the firm. PP&E includes, but is not limited to, Property, Plant & Equipment, Property Under Leases, Property Under Capital Leases, and Leasehold Improvements. Accumulated Depreciation includes, but is not limited to, Depreciation, Deletion, and Amortization.

Net PP&E = Property, Plant & Equipment - Accumulated Depreciation.

PP&E To Revenue
Net Property, Plant, and Equipment minus Depreciation and Amortization. This ratio represents the level of capital resources required by the company to support a given level of sales.
Glossary and Formulas

P-Q

Net PP&E
PP&E/Revenue = --------------- ratio
Net Sales

Pretax Margin
Reflects the overall efficiency of the firm's level of Income as a function of Net Sales.

Pretax Margin = Pretax Income -------------------------- %
Net Sales

Pretax Income
Net income before Federal and State Income Taxes.

P-R

Pretax Income = Income Before Depreciation & Amortization - Depreciation and Amortization +/- Non-Operating Income/Expense - Interest Expense.

Proforma Net Income
Proforma Net Income as reported by the company for each quarter.

Proforma EPS
Proforma EPS (earnings per share) as reported by the company for each quarter.

Price/Earnings
This ratio, commonly referred to as P/E, shows the relationship between Market Price of a share of Common Stock and that stock's current Earnings Per Share. In graphs the price/earnings ratio is only shown for values between 0 and 100.

Price/Earnings Ratio = Stock Price per Share
Sum of Last 4 Qtrs.' Earnings per Share

Price to Book
This ratio compares a stock's Market Price to its Book Value.

Price to Book Ratio = Stock Price per Share
Book Value per Share

Stock Price Quarterly
The closing Stock price of a firm at quarter end. Stock prices are adjusted if there was a stock dividend or stock split during a given month. Quarterly stock prices are as of the end of each quarter.

Quick Ratio
Also called acid-test ratio or quick asset ratio, by excluding inventory, this key liquidity ratio focuses on the company's more liquid assets.

Quick Ratio = Cash & Marketable Securities + Receivables
Total Current Liabilities
Glossary and Formulas

R-R

Receivable Days
This number reflects the average length of time between credit sales and payments received.

\[
\text{Receivable Days} = \frac{\text{Quarterly Receivables} \times 90}{\text{Quarterly Net Sales}} \quad \text{(Days Sales Outstanding, or DSO)}
\]

R&D Expense
Expenses involved with developing new technologies and bringing new products or services to market. Includes R&D Expenses and In-process R&D Expenses.

R&D Margin
R&D margin is the ratio relating R&D Expense to Net Sales.

\[
\text{R&D Margin} = \frac{\text{R&D Expense}}{\text{Net Sales}} \%
\]

R&D/Employee
This ratio calculates the annualized Research & Development (R&D) costs for each employee in the company.

\[
\text{R&D/Employee} = \frac{\text{Quarterly R&D} \times 4}{\text{Total Employees}} \$
\]

Return on Assets
Return On Assets (ROA) measures the firm's ability to use its assets to create profits.

\[
\text{Return on Assets} = \frac{\text{Qtr. Net Income} \times 4}{\text{Total Assets}} \%
\]

Return on Equity
Measures how much profit is being returned on the common shareholders' equity.

\[
\text{Return on Equity} = \frac{\text{Qtr. Net Income} \times 4}{\text{Shareholders' Equity}} \%
\]

Return on Capital
Measures the amount earned on the capital being used in the company.

\[
\text{Return on Total Capital} = \frac{\text{Qtr. Net Income} \times 4}{\text{Total Assets - Current Liabilities + Short Term Debt}} \%
\]

Return on Invested Capital (ROIC)
Amount, expressed as a percentage, earned on a company's total capital--its common and preferred stock equity plus its long-term funded debt. Return on Invested Capital, usually termed return on investment, or ROI, is a useful means of comparing companies, or corporate divisions, in terms of efficiency of management and viability of product lines.
Glossary and Formulas

R-S

\[
R-S = \frac{(\text{Quarterly Operating Profit X 4}) \times (1-\text{actual tax rate})}{\text{Total Assets - Non-Debt Liabilities}} \%
\]

ROIC

\[
\text{ROIC} = \frac{\text{Quarterly Operating Profit X 4}}{\text{Sales}} \%
\]

Revenues

Refers to the level of Net Sales of a company for a specified period of time.

Revenue/Employee

This ratio calculates the annualized revenue produced for each employee in the company.

\[
\text{Revenue/Employee} = \frac{\text{Quarterly Revenue} \times 4}{\text{Total Employees}} 
\]

SG&A Expense

Selling, general and administrative expense accounts for the overhead structure necessary to support sales and executive management functions for the company. Includes, but is not limited to, Advertising and Promotion, Bad Debt Expenses, Maintenance, Selling, General and Administrative Expenses, Other Operating Expenses, Taxes-other than Income Taxes.

SG&A Margin

SG&A Margin is the ratio of SG&A Expense to Net Sales.

\[
\text{SG&A Margin} = \frac{\text{SG&A Expense}}{\text{Net Sales}} \%
\]

SG&A/Employee

This ratio calculates the annualized Sales, General & Administrative (SG&A) costs for each employee in the company.

\[
\text{SG&A/Employee} = \frac{\text{Quarterly SG&A X 4}}{\text{Total Employees}} 
\]

Shares Used to Compute EPS

Reported on the Income Statement as the number of shares used for calculating EPS. This is at the highest level of dilution reported by the company in financial releases. This outstanding shares amount represents common equity shares in trade. In the event of stock splits, Shares, trading prices, and trading volumes are adjusted in proportion to the split ratio to ensure consistency in comparing market values and share-oriented data.

Short Term Debt

All liabilities coming due within the next 12 months. It includes Notes Payable, Current Long Term Debt, and Current Portion of Capital Leases.

Short Term Debt Per Share

Reflects the level of short-term debt relative to the level of the Average Number of Shares Outstanding.

\[
\text{Short Term Debt per Share} = \frac{\text{Short Term Debt}}{\text{Average Shares}} 
\]
Glossary and Formulas

S-T

Stock Price 6 Mo. Avg.
A moving 6-month average of monthly closing stock prices.

Tangible Equity Per Share
This measure subtracts out the sum of balance sheet intangibles such as goodwill, patents, trademarks, copyrights, property rights, and operating franchises.

\[
\text{Tangible Equity/Share} = \frac{\text{Shareholders' Equity} - \text{Intangibles}}{\text{Average Shares}} \text{ $/Share}
\]

Tax Rate
The rate of tax imposed by the federal and state governments on a firm's level of net earnings. Effective tax rates can be heavily distorted or rendered meaningless when Net Income approaches zero.

\[
\text{Tax Rate} = \frac{\text{Provision for Income Tax}}{\text{Pretax Income}} \times 100\% \text{ %}
\]

Total Assets
The level of a firm's assets at a particular time. This total must equal the liabilities plus equity section of a balance sheet. Total Assets includes Total Current Assets, Net Property, Plant and Equipment + Investments and Advances to Subsidiaries + Other Non-Current Assets + Deferred Charges + Intangibles + Deposits and Other Assets.

Total Debt
The sum of Short Term Debt and Long Term Debt.

Total Debt to Equity
Represents the degree of financial leveraging under which a company must operate.

\[
\text{Total Debt/Equity} = \frac{\text{Total Debt}}{\text{Shareholders' Equity}} \text{ ratio}
\]

Total Debt Per Share
This ratio reflects the degree of financial leverage present within a firm relative to the average shares outstanding.

\[
\text{Total Debt per Share} = \frac{\text{Total Debt}}{\text{Average Shares}} \text{ $/Share}
\]

Total Debt to Capital
This ratio is a reflection of the degree of total debt present relative to total liabilities plus equity.

\[
\text{Total Debt/Capital} = \frac{\text{Total Debt}}{\text{Total Debt} + \text{Shareholders' Equity}} \text{ ratio}
\]

Total Liabilities/Total Assets
This solvency ratio represents the relationship between a company's obligations and its offsetting assets. The lower this ratio, the better.
**Glossary and Formulas**

**T-W**

Total Liabilities/Total Assets = \(\frac{\text{Total Liabilities}}{\text{Total Assets}}\) ratio

**Total Liabilities/Equity**

This solvency ratio represents the proportion of Shareholders Equity that is under obligation. The lower this ratio, the better.

Total Liabilities/Equity = \(\frac{\text{Total Liabilities}}{\text{Shareholders Equity}}\) ratio

**Weighted Average Cost of Capital (WACC)**

This is the average cost of capital invested in the business. The key components are Debt, Preferred Equity and Common Equity.

\[
\text{WACC} = \frac{\text{Cost of Debt}}{\text{Market Value of Debt}} + \frac{\text{Cost of Preferred Equity}}{\text{Market Value of Preferred Equity}} + \frac{\text{Cost of Common Equity}}{\text{Market Value of Common Equity}}
\]

**Working Capital**

This is the capital that finances continuing operations of the company. It is normally used to manufacture, sell, and receive payment for its products and services.


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