

FINANCIAL FORMULAS - QUICK REFERENCE GUIDE

INFLATION & RETURNS

$$FV = PV \times (1 + \text{Inflation Rate})^n$$

$$\text{Real Return} = \text{Inv. Return} - \text{Inflation Rate}$$

MUTUAL FUNDS & EQUITY

$$NAV = (\text{Total Assets} - \text{Liab.}) / \text{Units}$$

$$\text{Market Cap} = \text{Market Price} \times \text{Total Shares}$$

$$\text{Brokerage} \leq 2.5\% \text{ of Trade Value}$$

$$\text{Spread} = \text{Best Bid} - \text{Best Ask}$$

YIELD MEASURES

$$\text{Curr. Yield} = (\text{Annual Coupon} / \text{Market Price}) \times 100$$

$$\text{Annual Coupon} = \text{Coupon Rate} \times \text{Face Value (FV=100)}$$

$$\text{Div. Yield} = (\text{Annual Dividend} / \text{Share Price}) \times 100$$

INTEREST & COMPOUNDING

Simple Interest (SI)

$$SI = P \times n \times r$$
$$A = P(1 + nr)$$

Compound Amount (CA)

$$A = P(1 + i)^n$$

BALANCE SHEET BASICS

$$\text{Net Block} = \text{Gross} - \text{Depreciation}$$

$$NWC = \text{Curr. Assets} - \text{Curr. Liab.}$$

$$\text{Rate of Return} = \text{Total Return} / P_{\text{begin}}$$

$$\text{Total Return} = \text{Div} + (\text{Pend} - P_{\text{begin}})$$

TIME VALUE OF MONEY

Future Value (Single Flow)

Discrete:

$$FV = PV \times (1 + r)^t$$

Continuous:

$$FV = PV \times e^{rt}$$

($e \approx 2.7183$)

Present Value (Single Flow)

Discrete:

$$PV = FV / (1 + r)^t$$

Continuous:

$$PV = FV \times e^{-rt}$$

Present Value of Annuity

Discrete:

$$PVA = FV \left[\frac{\{(1+r)^t - 1\}}{r(1+r)^t} \right]$$

Continuous:

$$PVA = FV \times \left[(1 - e^{-rt}) / r \right]$$

LIQUIDITY RATIOS

$$\text{Current Ratio} = CA / CL$$

$$\text{Acid Test} = \text{Quick Assets} / CL$$
$$\text{Quick Assets} = CA - (\text{Inv.} + \text{Prepaid})$$

LEVERAGE RATIOS

$$D/E \text{ Ratio} = \text{Total Debt} / \text{Total Equity}$$

$$D/A \text{ Ratio} = \text{Total Debt} / \text{Total Assets}$$

$$\text{Interest Coverage Ratio} = \text{EBIT} / \text{Interest}$$

$$\text{Debt Service Coverage Ratio} = (\text{PAT} + \text{Dep} + \text{Non-cash} + \text{Int}) / (\text{Int} + \text{Loan Repayment})$$

TURNOVER RATIOS

$$\text{Inv. Turnover} = \text{COGS} / \text{Avg Inv.}$$
$$\text{COGS} = \text{Sales} - \text{Profit}$$
$$\text{Avg Inv} = (\text{Open} + \text{Close}) / 2$$

$$\text{Debtors T/O} = \text{Net Credit Sales} / \text{Avg Debtors}$$

$$ACP = \text{Avg Debtors} / \text{Daily Credit Sales}$$

or $ACP = 365 / \text{Debtors Turnover}$

$$FA \text{ Turnover} = \text{Net Sales} / \text{Net FA}$$

$$TA \text{ Turnover} = \text{Net Sales} / \text{Avg Total Assets}$$

PROFITABILITY RATIOS

$$\text{Gross Profit Ratio} = (\text{GP} / \text{Sales}) \times 100$$

$$\text{Net Profit Ratio} = (\text{NP} / \text{Sales}) \times 100$$

$$\text{Return On Total Assets} = \text{NPAT} / (\text{Fixed Assets} + CA)$$

$$\text{Return On Capital Employed} = \text{NPAT} / \text{Capital Employed}$$
$$\text{Cap Emp} = FA + CA - CL$$

$$\text{Return On Shareholders' Equity} = \text{NPAT} / \text{Shareholders' Equity}$$

Valuation

$$EPS = \text{Profit Avail. to Equity} / \text{Shares}$$

$$P/E = \text{Market Price} / EPS$$