FINANCIAL FORMULAS - QUICK REFERENCE GUIDE

INFLATION & RETURNS

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

Real Return = Inv. Return – Inflation Rate

MUTUAL FUNDS & EQUITY

NAV = (Total Assets – Liab.) / Units

Market Cap = Market Price × Total Shares

Brokerage ≤ 2.5% of Trade Value

Spread = Best Bid – Best Ask

YIELD MEASURES

Curr. Yield = (Annual Coupon / Market Price) × 100
Annual Coupon = Coupon Rate × Face Value (FV=100)

Div. Yield = (Annual Dividend / Share Price) × 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

Net Block = Gross – Depreciation

NWC = Curr. Assets – Curr. Liab.

Rate of Return = Total Return / P_{begin}
Total Return = Div + (Pend– Pbegin)

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

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

LIQUIDITY RATIOS

Current Ratio = CA / CL

Acid Test = Quick Assets / CL
Quick Assets = CA – (Inv. + Prepaid)

LEVERAGE RATIOS

D/E Ratio = Total Debt / Total Equity

D/A Ratio = Total Debt / Total Assets

ICR = EBIT / Interest

DSCR = Cash Flows / Debt Obligations
Num: (PAT + Dep + Non-cash + Int)
Den: (Interest + Loan Repayment)

TURNOVER RATIOS

Inv. Turnover = COGS / Avg Inv.
COGS = Sales – Profit
Avg Inv = (Open + Close) / 2

Debtors T/O = Net Credit Sales / Avg Debtors

ACP = Avg Debtors / Daily Credit Sales
or ACP = 365 / Debtors Turnover

FA Turnover = Net Sales / Net FA

TA Turnover = Net Sales / Avg Total Assets

PROFITABILITY RATIOS

Gross Profit Ratio = (GP / Sales) × 100

Net Profit Ratio = (NP / Sales) × 100

ROTA = NPAT / (Fixed Assets + CA)

ROCE = NPAT / Capital Employed
Cap Emp = FA + CA – CL

ROE = NPAT / Shareholders' Equity

Valuation

EPS = Profit Avail. to Equity / Shares

P/E = Market Price / EPS