

# FINANCIAL FORMULAS - QUICK REFERENCE GUIDE

INFLATION & RETURNS	TIME VALUE OF MONEY	TURNOVER RATIOS
$FV = PV \times (1 + \text{Inflation Rate})^n$ <b>Real Return = Inv. Return – Inflation Rate</b>	<b>Future Value (Single Flow)</b> <p>Discrete:  <math>FV = PV \times (1 + r)^t</math></p> <p>Continuous:  <math>FV = PV \times e^{rt}</math>  <math>(e \approx 2.7183)</math></p>	<b>Inv. Turnover = COGS / Avg Inv.</b> COGS = Sales – Profit Avg Inv = (Open + Close) / 2
MUTUAL FUNDS & EQUITY	Present Value (Single Flow)	<b>Debtors T/O = Net Credit Sales / Avg Debtors</b>
$NAV = (\text{Total Assets} - \text{Liab.}) / \text{Units}$ <b>Market Cap = Market Price × Total Shares</b> <b>Brokerage ≤ 2.5% of Trade Value</b> <b>Spread = Best Bid – Best Ask</b>	<p>Discrete:  <math>PV = FV / (1 + r)^t</math></p> <p>Continuous:  <math>PV = FV \times e^{-rt}</math></p>	<b>ACP = Avg Debtors / Daily Credit Sales</b> or ACP = 365 / Debtors Turnover
YIELD MEASURES	Present Value of Annuity	<b>FA Turnover = Net Sales / Net FA</b>
<b>Curr. Yield = (Annual Coupon / Market Price) × 100</b> Annual Coupon = Coupon Rate × Face Value (FV=100)	<p>Discrete:  <math>PVA = FV \left[ \frac{(1+r)^t - 1}{r(1+r)^t} \right]</math></p> <p>Continuous:  <math>PVA = FV \times \left[ \frac{1 - e^{-rt}}{r} \right]</math></p>	<b>TA Turnover = Net Sales / Avg Total Assets</b>
INTEREST & COMPOUNDING	LIQUIDITY RATIOS	PROFITABILITY RATIOS
<b>Simple Interest (SI)</b> <p><math>SI = P \times n \times r</math>  <math>A = P(1 + nr)</math></p>	<b>Current Ratio = CA / CL</b> <b>Acid Test = Quick Assets / CL</b> Quick Assets = CA – (Inv. + Prepaid)	<b>Gross Profit Ratio = (GP / Sales) × 100</b>
<b>Compound Amount (CA)</b> <p><math>A = P(1 + i)^n</math></p>		<b>Net Profit Ratio = (NP / Sales) × 100</b>
BALANCE SHEET BASICS	LEVERAGE RATIOS	<b>Return On Total Assets = NPAT / (Fixed Assets + CA)</b>
<b>Net Block = Gross – Depreciation</b> <b>NWC = Curr. Assets – Curr. Liab.</b> <b>Rate of Return = Total Return / P<sub>begin</sub></b> Total Return = Div + (Pend – Pbegin)	<p><b>D/E Ratio = Total Debt / Total Equity</b></p> <p><b>D/A Ratio = Total Debt / Total Assets</b></p> <p><b>Interest Coverage Ratio = EBIT / Interest</b></p> <p><b>Debt Service Coverage Ratio = (PAT + Dep + Non-cash + Int) / (Int + Loan Repayment)</b></p>	<b>Return On Capital Employed = NPAT / Capital Employed</b> Cap Emp = FA + CA – CL
		<b>Return On Shareholders' Equity = NPAT / Shareholders' Equity</b>
		<b>Valuation</b> <p><b>EPS = Profit Avail. to Equity / Shares</b></p> <p><b>P/E = Market Price / EPS</b></p>