

FINANCIAL FORMULAS - QUICK REFERENCE GUIDE

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