Inflation & Returns

FV = PV × (1 + Inflation Rate)^{n}

Real Return = Investment Return – Inflation Rate

Mutual Funds & Equity

NAV = (Total Assets – Liabilities) / Outstanding Units

Market Cap = Current Market Price × Total Shares Issued

Brokerage ≤ 2.5% of Trade Value

Bid–Ask Spread = Best Bid Price – Best Ask Price

Yield Measures

Current Yield = (Annual Coupon / Market Price) × 100

Annual Coupon = Coupon Rate × Face Value (assume FV = 100 unless stated)

Dividend Yield = (Annual Dividend / Share Price) × 100

Interest & Compounding

Simple Interest (SI)

SI = P × n × r

A = P(1 + nr)

Compound Amount (CA)

A = P(1 + i)^{n}

Time Value of Money

Future Value

Single Cash Flow (Discrete)

FV = PV × (1 + r)^{t}

Continuous Compounding

FV = PV × e^{rt} *(e = 2.7183)*

Future Value of Annuity

$$FVA = CF*(1+r)^{t-1} + CF*(1+r)^{t-2} + \ldots + CF*(1+r)^{1} + CF$$

$$= CF\left(\frac{(1+r)^{t}-1}{r}\right)$$

PV of Single Cash Flow

Discrete Interval

PV = FV / (1+r)^{t}

Continuous Compounding

PV = FV * e^{-rt} *[where e = 2.7183]*

Present Value of Annuity

Discrete Interval

PVA = FV [{(1+r)^{t} – 1 } / {r * (1+r)^{t}}]

Continuous Compounding

PVA = FV * [(1 - e^{-rt}) / r] *(e = 2.7183)*

Balance Sheet Basics

Net Block = Gross – Depreciation

NWC = Current Assets – Current Liabilities

Liquidity Ratios

Current Ratio

Current Ratio = Current Assets / Current Liabilities

Acid Test (Quick) Ratio

Acid Test Ratio = Quick Assets / Current Liabilities

Quick Assets = Current Assets – (Inventory + Prepaid Expenses)

Turnover Ratios

Inventory Turnover Ratio

Inventory Turnover = Cost of Goods Sold / Average Inventory

Cost of Goods Sold = Sales – Profit

Average Inventory = (Opening + Closing) / 2

Debtors (Accounts Receivable) Turnover

Debtors Turnover = Net Credit Sales / Average Debtors

Average Collection Period

ACP = Average Debtors / Average Daily Credit Sales

ACP = 365 / Debtors Turnover

Fixed Assets Turnover

Fixed Assets Turnover = Net Sales / Net Fixed Assets

Total Assets Turnover

Total Assets Turnover = Net Sales / Average Total Assets

Leverage Ratio

Debt–Equity Ratio

Debt–Equity = Total Debt / Total Equity

Debt–Asset Ratio

Debt–Asset = Total Debt / Total Assets

Interest Coverage Ratio

ICR = EBIT / Interest

Debt Service Coverage Ratio

DSCR = (PAT + Depreciation + Non-cash Exp. + Interest) / (Interest + Loan Repayment)

Profitability Ratios

Gross Profit Ratio (%)

Gross Profit / Net Sales × 100

Net Profit Ratio (%)

Net Profit / Net Sales × 100

Return on Total Assets

ROTA = NPAT / (Fixed Assets + Current Assets)

Return on Capital Employed

ROCE = NPAT / Capital Employed

Capital Employed = Fixed Assets + Current Assets – Current Liabilities

Return on Equity

ROE = NPAT / Shareholders' Equity

Earnings Per Share (EPS)

EPS = Profit available to Equity Shareholders / No. of Shares

Price–Earnings Ratio (P/E)

P/E = Market Price per Share / EPS