Finance

- Balance sheet (snapshot at a particular time)
  asset = liability + equity
  liability = debt (from investors)
  equity = from shareholders
- EBIT ⇒ Earning before interest and taxes.
- dividend ⇒ amount given to shareholders.
- Income statement ≡ Profit loss statement
  summarizes expenses and profits over a period
- Cash flow statement ≡ Statement of changes
  summary of source and use of cash.
- Liquidity ratio
  1) current ratio = current asset / current liabilities
  2) Quick ratio = (current asset − inventory) / " "
- Ratios helps analyst to see and compare performance
- Asset management ratio
  Inventory turnover = Sales / Inventories
  Average collection Period = $\frac{\text{accounts receivable}}{\text{average daily sales}}$
  asset turnover = sales / asset
- Debt ratio = debt / asset
- Market value ratio, Profit margin, Profit ratio
- Investment banks are actually brokers / moderator
- Debt ≡ bond ; equity ≡ stock
- liquidity = ease at which cash can be received or circulated.

- Money market trade in short term
- Capital market trade in long term
- Equity market are stock market
- Capital market = share market + debt market + derivative market.
- shareholders get dividend + capital gain
- Interest rate = Pure rate + Inflation + Premium for risk
- Future value of money = $P(1+R)^T$ (its compounded)
- If time is continuous, $(1+R)^T = e^{RT}$
- Discount rate = opportunity cost = Investor rate of return
- Zero coupon bond ⇒ It has no interest, but is priced at ~~face value~~ a discount from face value to give rate. For eg if face value is 10000 at 9% return, we have to give only 917₹ now.
- Annuity ⇒ Investor invests a series of equal payments over a period of time.
- Present value $= \frac{A}{1+R} + \frac{A}{(1+R)^2} - - - - - \frac{A}{(1+R)^T}$

  where T is time period of annuity
- Perpetuity ⇒ annuity with $T=\infty$, $PV = A/R$
- Debt ≡ bank loan + bonds
- Coupons are periodic interest paid to bond issuers.
- Bonds are priced by finding current value of coupons
- Interest rate ∝ bond price
- Preffered stockholders have no voting rights

- Real interest = $\frac{\text{Nominal I} - \text{inflation}}{1 + \text{Inflation}}$
- Net Present Value > 0 ⇒ Profit and vice versa
- IRR (Internal rate of return) is the actual return earned on investment.
- For investment, IRR > Hurdle rate
- NPV ∝ ¼ discount rate
- NPV instead of IRR should be used for taking decisions
- Payback period ≡ time for cash flow to equal investment
- Profitability Index = $\frac{\text{Inflow (Return)}}{\text{outflow (Investment)}}$ = PI
- NPV > 0 or PI > 1 ⇒ Invest
- Variance in return ∝ risk
- Portfolio ⇒ Collection of different investment options
- Portfolio should be diversified into different sectors to reduce company specific risk
- Beta coefficient measures covariability of a stock as compared to overall portfolio.
- Security market line ⇒ Return Vs Risk graph.
- CAPM → Capital asset pricing model (it incorporates risk as well, hence preferred for valuation)
- Firms wish they ~~need~~ use only debt for finance as interest are least, but bankers give debt only if equity is also there.
- Capital structure tells the % of debt, preferred stock, common equity.
- Floatation cost ⇒ Investment bank charge

for providing their services.

- Residual value ⇒ Value of the project at a time in future.
- Options and Futures are derivative securities or hedge risk management.
- Call option ⇒ buy an asset at a specific price on or before maturity date.
- Put option ⇒ sell an asset at a specific price.
- Swap is exchange of cash flow between two counterparties (mediated often by banks) and are intended to reduce borrowing cost.
- Futures are also risk hedging methods like options, but unlike option, here there is no choice and you have to buy/sell after a certain time
- Book value ⇒ Value of asset as on balance sheet.
- Quick test ≡ Acid test ⇒ how easily firm can use its most liquid current assets to meet liabilities