

CAPITAL STRUCTURE

* CS best option

Based on MPS/EPS

$$PE = \frac{MPS}{EPS}$$

$$MPS = EPS \times PE$$

$$K_e = \frac{EPS}{MPS} \approx \frac{1}{P_e}$$

$$EPS = \frac{\text{earnings to ESH}}{\text{no. of ES}}$$

PBIT
(-) IT (old + new)

PBT
(-) Tax

PAT

(-) Pr div
earnings to ESH.

* Indifference point (level of PBIT with same EPS)

$$EPS (op^1) = EPS (op^2)$$

$$\frac{(PBIT - int_1)(1 - tr) - P \cdot d}{\text{no. of ES}} = \frac{(PBIT - int_2)(1 - TR) - PD}{\text{no. of ES}}$$

IDP indifferent
PBIT < IDP lower FC (equity)
PBIT > IDP cheap (debt)

$$\text{debt equity} = \frac{\text{debt}}{D+E}$$

* Financial BtP

level of PBIT enough to cover FC

Profit (PBIT) = 0

$$PBIT @ FBEP = \text{deb}^n \cdot \text{int} + \frac{P \cdot \text{div}}{1 - TR}$$

PAU A B
Debⁿ int
P · D / 1 - TR

Common assumptions

- only 2 sources (D+E)
- X RE X TAXES
- Overall CE = same (leverage)
- X losses
- PBIT = div (all profits dist)

* Capital structure theories

change Overall COC

no change in COC

- ① NI approach
- ② Traditional theory

- ① NOI (set debt)
- ② M&M

* M&M

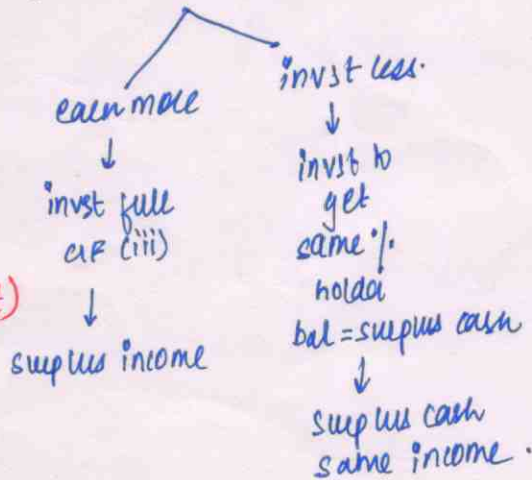
- Cap. and market are perfect
- Ind, corporate = same int.
- Value of 2 firms → same

Process: L → VL

- (i) sell shares of overvalued firm (CIF)
CIF = % holding × MV (E)
- (ii) overval (L → VL)
CIF = % holding × total loan in old F

- (iii) (i) + (ii) = CIF
- (iv) Invest sh in undervalued firm.

VL → L (shares + debⁿ)
L → VL (shares)



	NI approach: NOI	Traditional
Kd	const	const × const
Ke	const × const	const × const
	Kd < Ke	Kd < Ke

$$V_F = V_D + V_E$$

$$V_E = \frac{PBT}{K_e} \quad \frac{PAT}{K_e}$$

$$O-COC = \frac{PBIT}{V_F} \quad \frac{int(1 - E) + PAT}{V_F}$$

$$V_{LF} = V_{ULF} + \text{Tax benefit} (TR \times \text{deb}^n \text{ amt})$$

$$\text{gain to SH.} = \text{new } V_E - \text{old } V_E$$