Theory of Cost

Types of Costs

1) **Accounting cost** : Explicit costs, involve cash payments
2) **Implicit cost** : cost of using self owned factors of production, owned by entrepreneur itself. (Normal profits)

3) **Economic costs** :- Explicit cost + Implicit cost + Normal profit

4) **Outlay cost** :- A/cing cost, actual expenditure
5) **Opportunity cost** :- Implicit cost, cost of next best alter. forgone.
6) **Direct / Traceable cost** :- readily identified & are traceable
7) **Indirect / Non-Traceable cost** :- not easily & definitely indentifiable.
8) **Incremental cost** :- additional cost incurred by a firm. (Marginal cost)
9) **Sunk cost** :- incurred once → cannot be recovered.
10) **Historical cost** :- cost incurred in Past.
11) **Replacement cost** :- A/cing cost, money exp. for replacing old asset.
12) **Private cost** :- costs actually incurred, either explicit or implicit.
13) **Social cost** :- total cost borne by the society for business activity.
14) **Fixed cost** :- constant / uncontrollable / inescapable cost, not a function of output.
15) **Shut down cost** :- costs which continue even after the operations are closed.
16) **Variable cost** :- function of output.

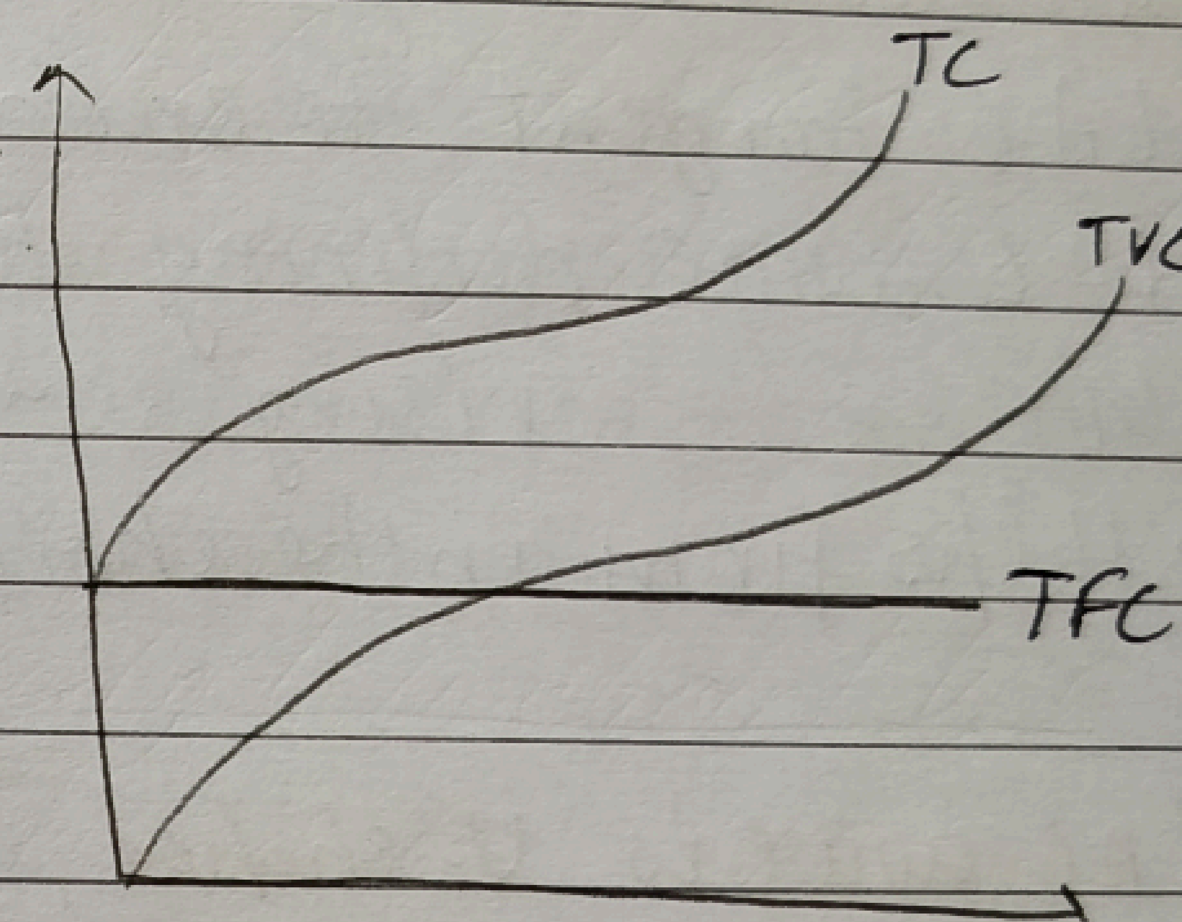
Total Revenue
(−) A/c ing cost
= A/cing profit
(−) Implicit cost
= Economic profit

Cost function → Short run: Changing only amount of variable factors. Qty. of fixed factor cannot be varied.
↳ Long run: Qty. of all factors may be varied.

Types of Short Run Total Costs

1) Completely Fixed Cost: fixed amt. incurred by a firm.
2) Completely Variable Cost: change with change in output
3) Semi-Variable Cost: neither perfectly variable, nor absolutely fixed, eg:- Electricity charges
4) Stair-step Variable Cost: remain fixed over a certain range of output but suddenly jump to a new higher level when output goes beyond a given limit.

- TFC: Horizontal straight line ∥ to x-axis
- TVC: Inverted S-shape, Initially ↑ at decreasing rate then ↑ at increasing rate due Law of Inc. & diminishing returns respectively.



Types of short run - Average costs

1) AFC (TFC/Q) ⇒ Rectangular hyperbola, slope downwards, will not touch x-axis as AFC can't be zero.
2) AVC (TVC/Q) ⇒ U-shaped, It falls first due to Inc. returns to varia. factors then will rise due to diminishing returns.
3) ATC (TC/Q) ⇒ U-shaped curve
4) MC ⇒ Slope of TC, Independent of fixed cost, due to change in Variable cost, MC is U-shaped.

$MC = \Delta TC / \Delta Q$

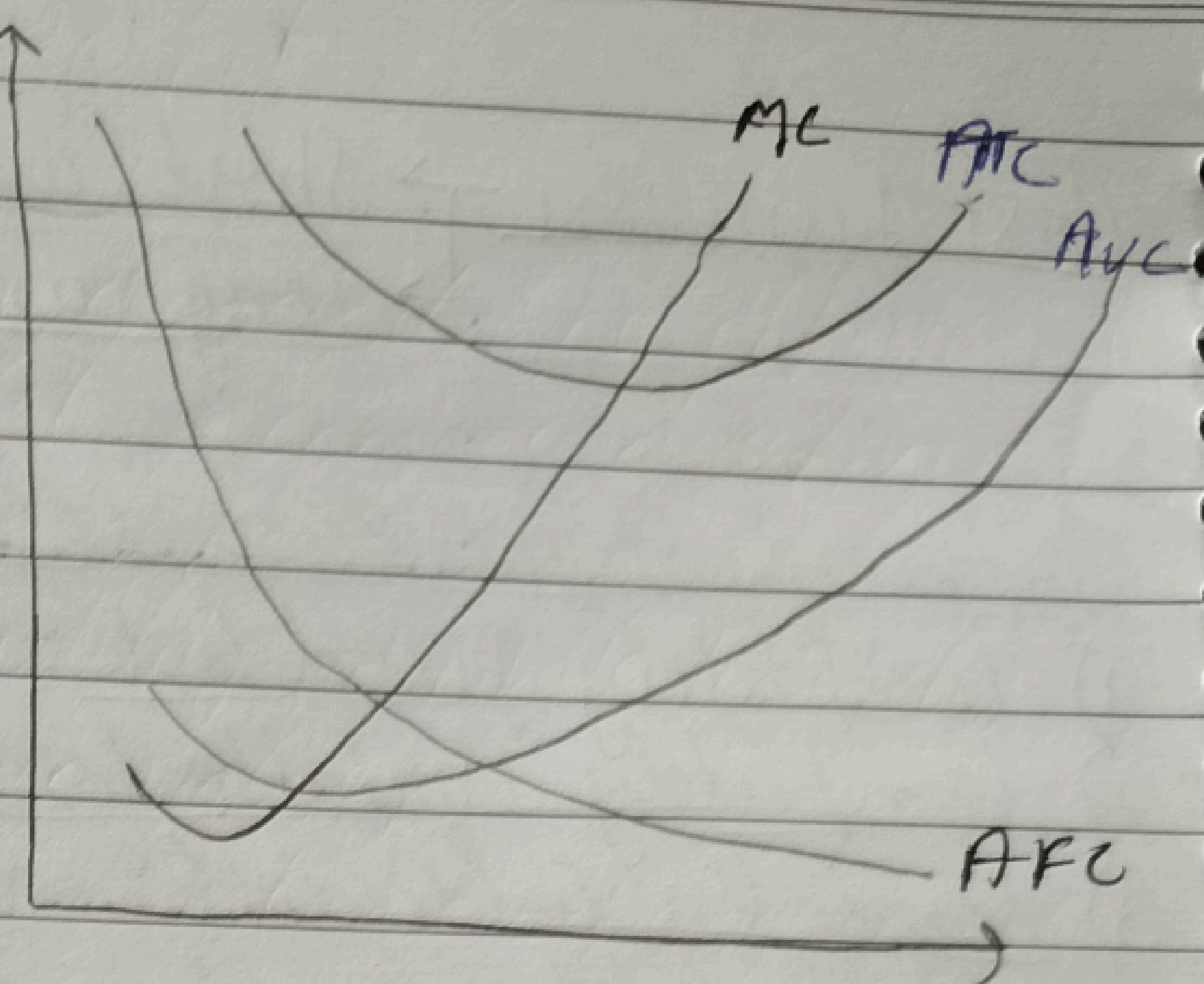
$MC = TC_n - TC_{n-1}$

Rel. b/w AC and MC

AC↓ ⇒ AC > MC

AC↑ ⇒ AC < MC

AC = MC ⇒ AC is min, MC cuts AC at it's min. point.



Long run Average Cost curve

→ Least possible cost of producing any given level of output, when all individual factors are variable.

→ LAC tangent to each of the SAC curves.

→ LAC curve declining tangent to falling portion of SAC curve.

→ LAC " rising " " rising " " " "

→ Helps firm in the choice of the size of the plant.

LAC curve is U-shaped,

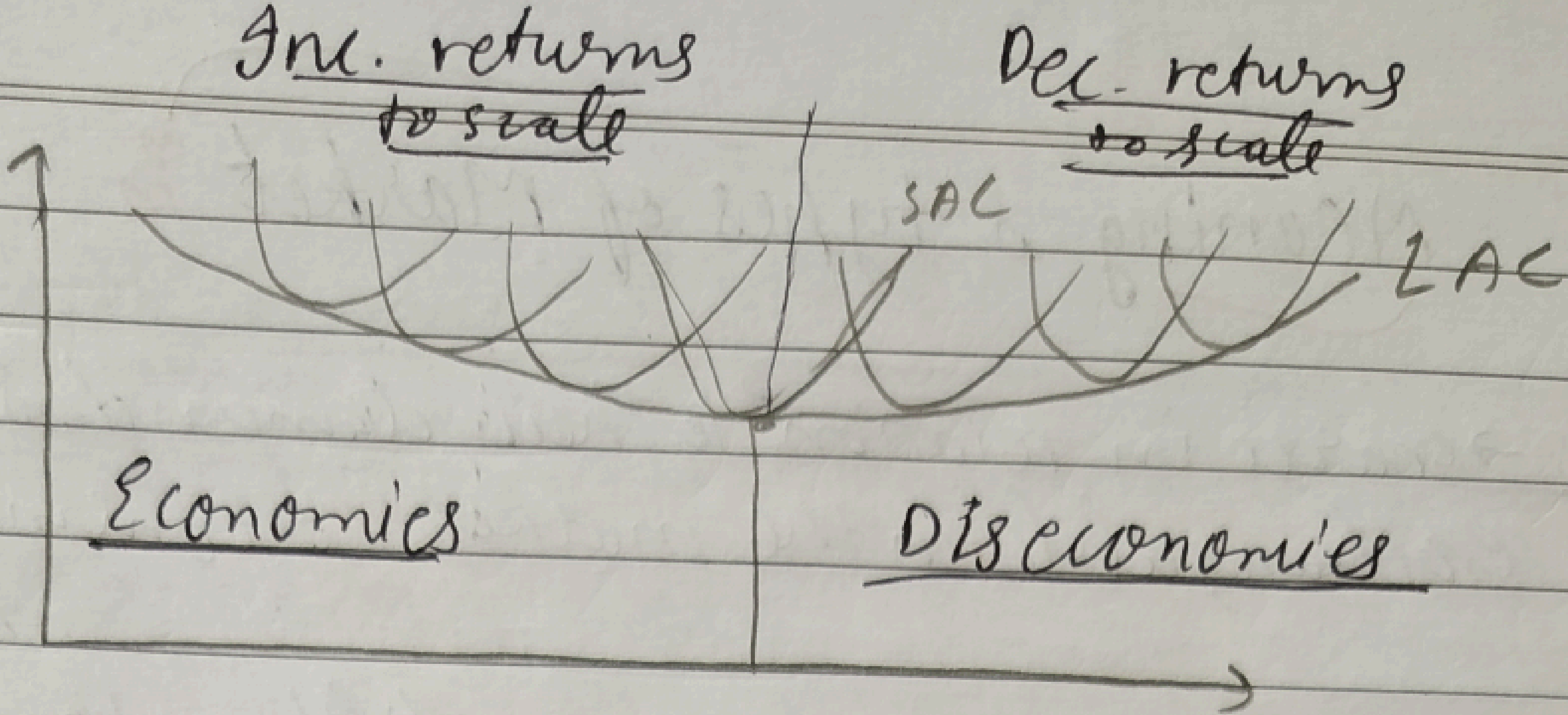
Increasing returns to scale → fall in LAC curve → Increasing economies of scale

Decreasing returns to scale → rise in LAC curve → Diseconomies of scale.

Modern firms face "L-shaped" LAC curve, (continues to enjoy Economies of scale)

SAC curve are also called 'Plant curve'

LAC curve also called 'Planning curve' & 'Envelope curve'



Economies of scale

Internal Economies
→ Cost of production ↓
→ arise within the firm & available exclusively to firm.
→ Advance tech.
→ labour & specialisation
→ Efficient, skilled & qualified mgt. → Decentralisation
→ Discount on Bulk purch.
→ Improved Branding & Goodwill
→ prepared to face uncertainties

External economies
→ Common benefits accruing to all firms.
→ Cheaper raw material & cap. equipment.
→ Discovery of New tech. knowledge.
→ Development of skilled labour.
→ Growth of ancillary industries.
→ Better transportation & mkting facilities
→ Economies of Information

Diseconomies of Scale

Internal Diseconomies
Cost of production per unit ↑

[Just opposite points]

External Diseconomies
→ ↑ pressure on infrastructural facility
→ over taxed → Inc. competition
→ Unfavourable govt. policies
→ Higher costs → Inc. spending.