

CH 3 Unit 2

Theory of Cost

① Economic Cost

Explicit Cost

(Accounting Cost)
(+)



£70,000 p.m

Implicit Cost

(opportunity cost)

Job left

£100,000 p.m

opportunity gone

* Implicit Cost $\rightarrow$ entrepreneur $\rightarrow$ $\rightarrow$ could have earned
opportunity gone

② Profit

Accounting Profit

= Total Revenue (-)

Accounting Cost

Economic Profit

= Total Revenue (-)

Economic Cost

* Can AP > EP ?

Yes

* Can EP > AP ?

No

* $\text{Total Revenue} = \text{Economic loss}$

" Normal Profit Situation "
(No profit No loss)

③

Outlay cost
↓
explicit

vs

Opportunity cost
↓
Implicit

Direct cost
↓
" Traceable "

vs

Indirect cost
↓
Non traceable

Historical cost
↓
इसरीदा था

vs

Replacement cost
↓
आज New की

Individual cost
↓
अने

vs

Social cost
pollution ☹️

fixed cost
↓
fixed
(do not change)

vs

Variable cost
↓
changes.

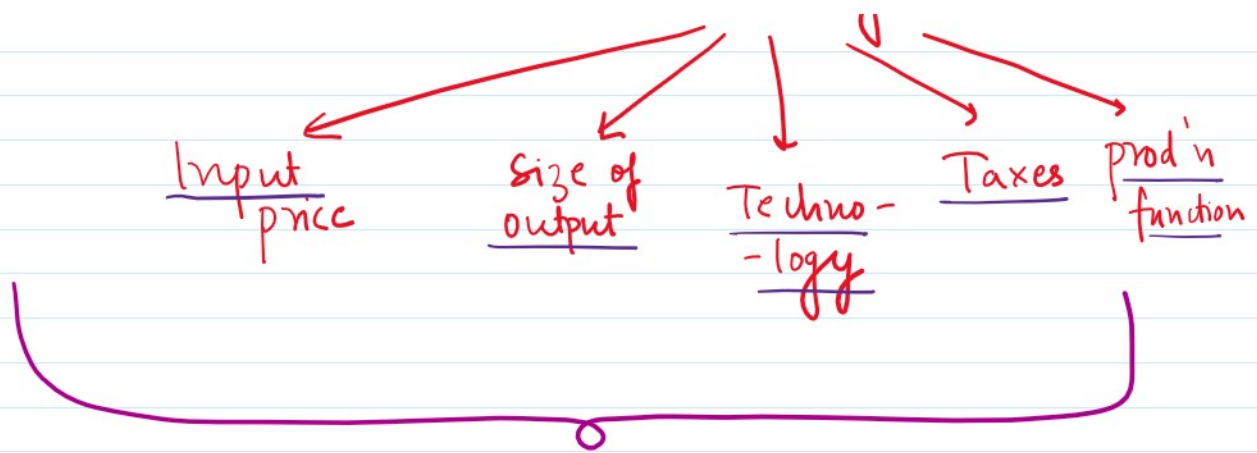
④

Cost function

$$C = f(a, b, c, d, \dots)$$

Various factors





* Short Run - (7) [at least 1 factor fixed]

* Long Run - (1) [all variable]

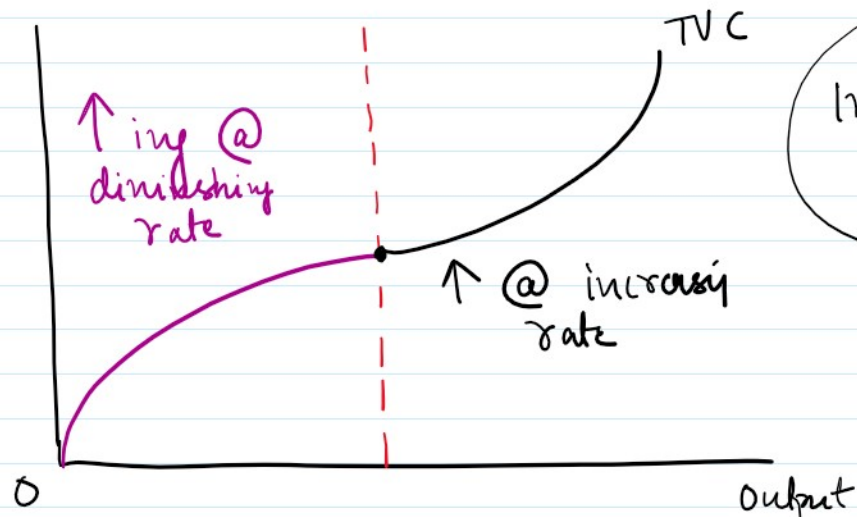
SHORT RUN

① Total Fixed Cost (TFC)



parallel to x axis

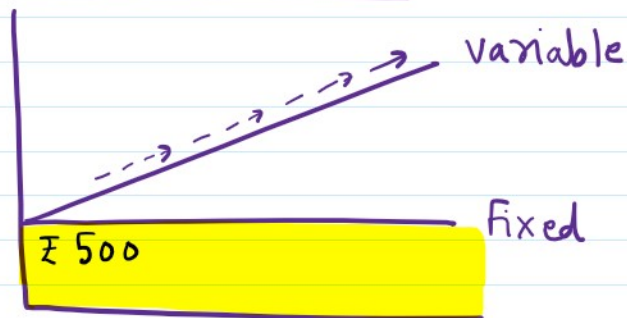
② Total Variable Cost (TVC)



Inverted S

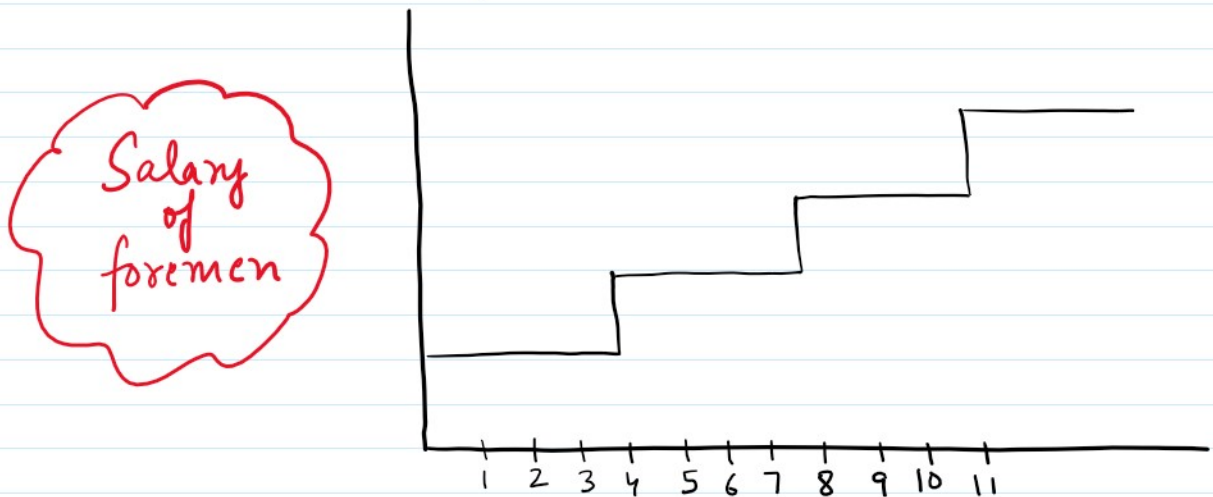


* Semi Variable cost



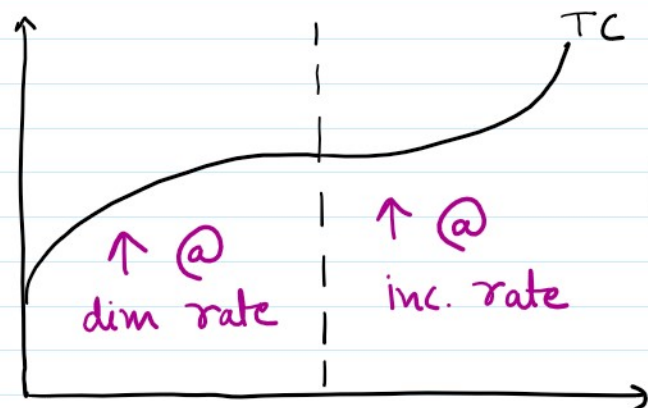
electricity bill

* Stair Step cost



③ Total cost (TC)

$$= TFC + TVC$$



inverted S

* TC is parallel to TVC

* TC is parallel to TVC

* $TC - TVC = TFC$

④ Average fixed cost (AFC)

$$\frac{TFC}{Q}$$



Rectangular
hyperbola

⑤ Average Variable cost (AVC)

$$= \frac{TVC}{Q}$$



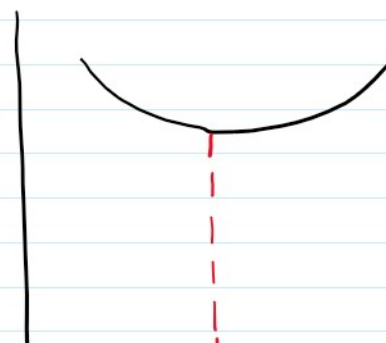
U-shaped

⑥ Average cost (AC)

$$\frac{TC}{Q}$$

or

$$AC = AFC + AVC$$



U-shaped



(7)

Marginal Cost (MC)

TVC

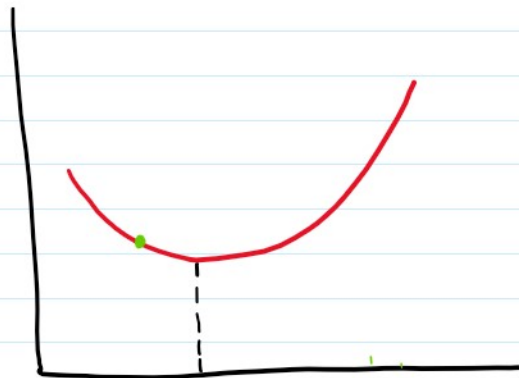
10
16
18
30
50

Addition in TVC

+ 6
+ 2
+ 12
+ 20

$$MC = \frac{\Delta TVC}{\Delta Q}$$

MC is the SLOPE of TVC



U-shaped

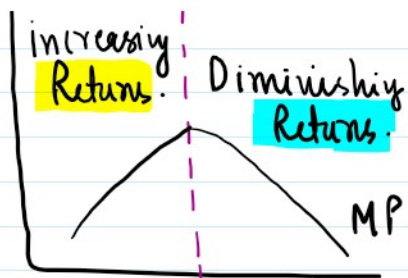
* Area under MC curve is TVC

* Rising portion of MC is Supply curve



Increasing Returns | Diminishing

Production (Law of Returns)



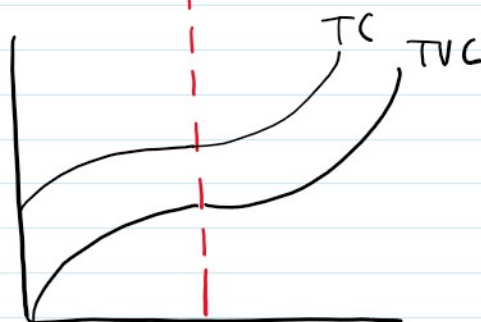
Production
(Law of Returns)

Inverse



AC, AVC,
MC

U-shaped

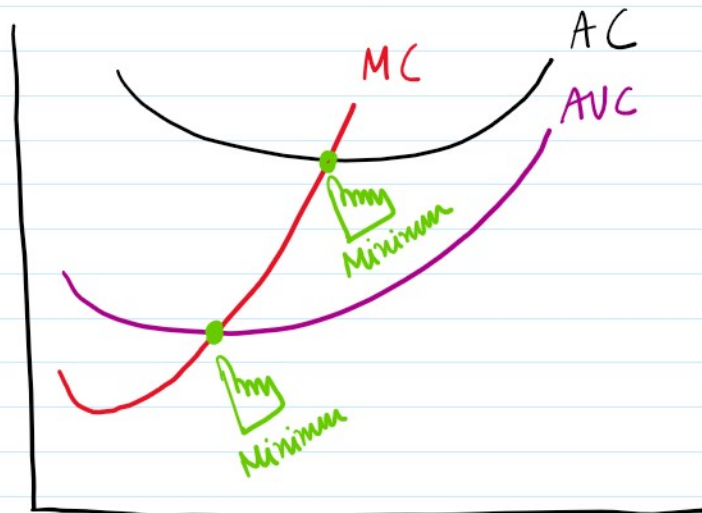


TC, TVC

Inverted-S

Imp.

* AC, AVC, MC



① $MC < AC/AVC$; $AC/AVC (\downarrow)$

② $MC = AC/AVC$; AC/AVC Minimum.

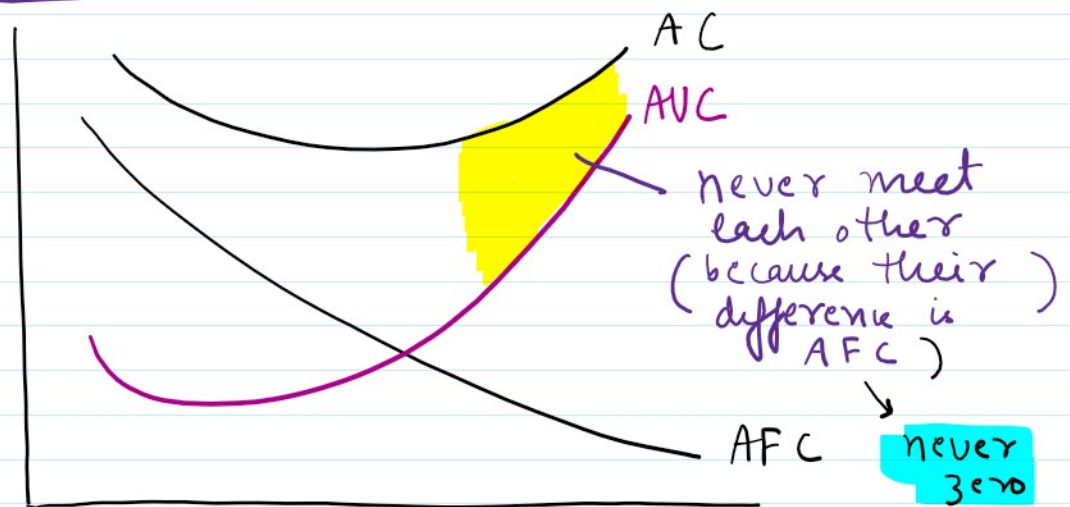
$$(1) MC < AC/AVC ; AC/AVC (\downarrow)$$

$$(2) MC = AC/AVC ; AC/AVC \text{ Minimum.}$$

$$(3) MC > AC/AVC ; AC/AVC (\uparrow)$$

* ^{Imp:}

AC, AVC + AFC



$$* AC - AVC = AFC$$

* AFC never touches X-axis

$$1) TC = TFC + TVC \text{ or } AC \times Q$$

$$2) TFC = TC - TVC \text{ or } AFC \times Q$$

$$3) TVC = TC - TFC \text{ or } AVC \times Q \text{ or } \leq MC$$

$$4) AFC = AC - AVC \text{ or } TFC \div Q$$

$$5) AVC = AC - AFC \text{ or } TVC \div Q$$

$$6) AC = AVC + AFC \text{ or } TC \div Q$$

$$\rightarrow MC = \Delta TVC \text{ or } \Delta TC$$

$$6) MC = MVC + AFC \quad \text{or} \quad MC = \frac{\Delta TC}{\Delta Q}$$

$$7) MC = \frac{\Delta TVC}{\Delta Q} \quad \text{or} \quad \frac{\Delta TC}{\Delta Q}$$

* LONG RUN

(No fixed cost)



LAC → planning curve
(envelope curve)

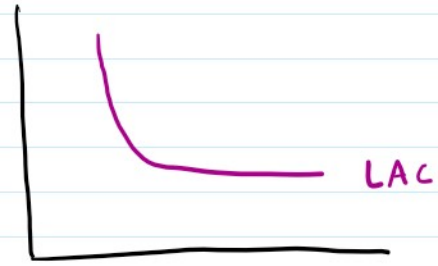
All SACs → Plant curve

* LAC is U-shaped
because of Law of Returns
to Scale

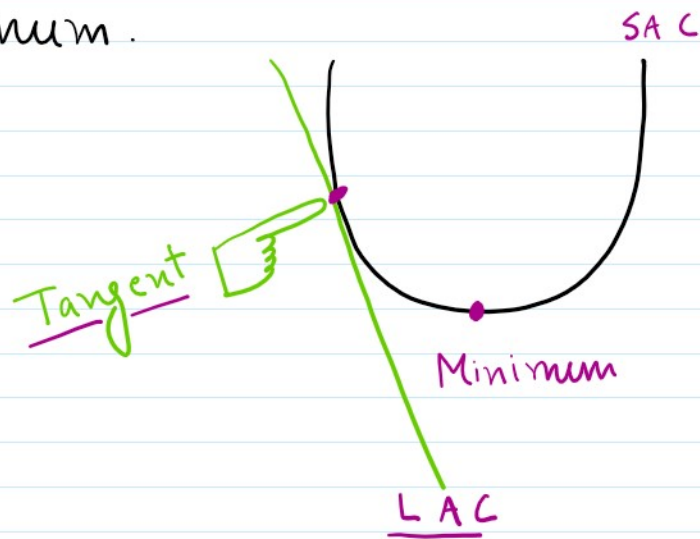
* LAC is TANGENT to all SACs

* If technology changes then LAC is

* If technology changes then LAC is L-shaped



* LAC does not touch SAC at Minimum.

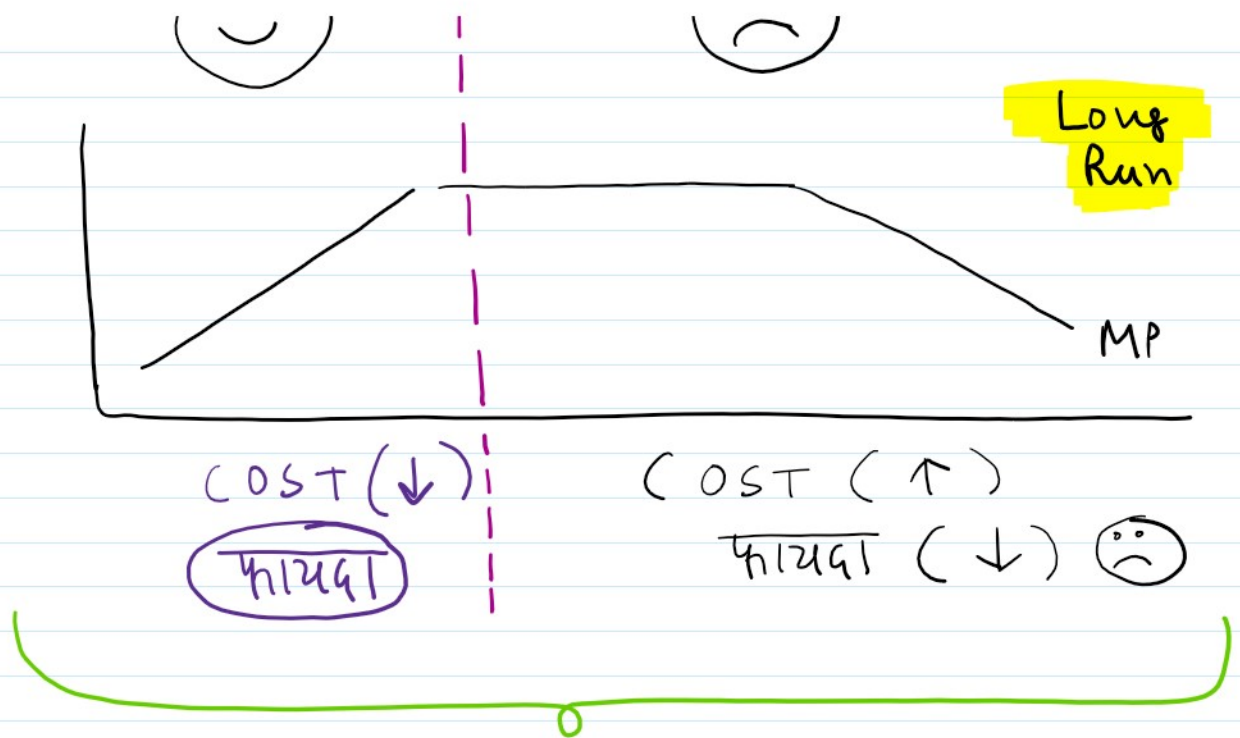


* Shut down point

$$\begin{aligned} \rightarrow \text{Short Run : } TR &= TVC \\ & (P = AVC) \\ \hline \rightarrow \text{Long Run : } TR &= TC \\ & (P = AC) \end{aligned}$$

* Economies & Diseconomies of Scale

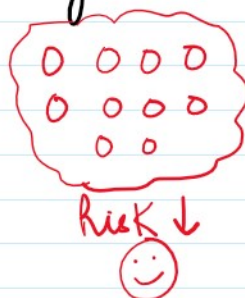




Internal

{  firm only }

- 1) Technical
- 2) Managerial
- 3) Commercial
- 4) Financial
- 5) Risk bearing



External

{ पूरती Industry
//////////
 एन }

- 1) Cheaper Raw Material
- 2) Technological change
- 3) Skilled labour development
- 4) Better Infrastructure
- 5) Better IT



Risk ↓

