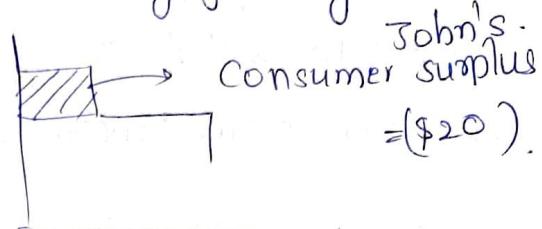
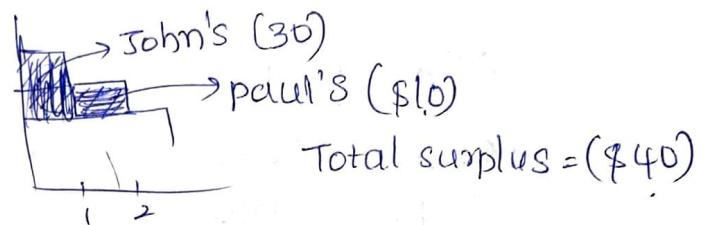


Measuring consumer Surplus with Demand curve :-

(a) Price = \$ 80. \rightarrow only John willing to pay



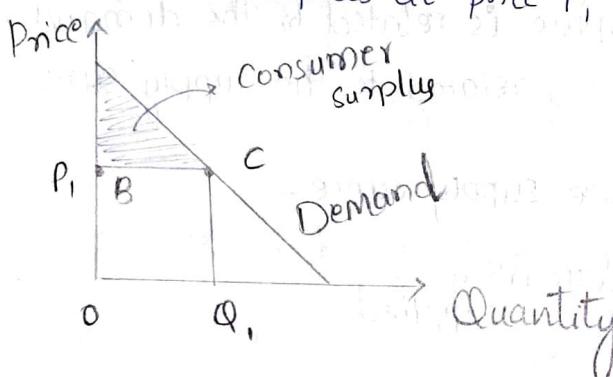
(b) Price = 70



CS

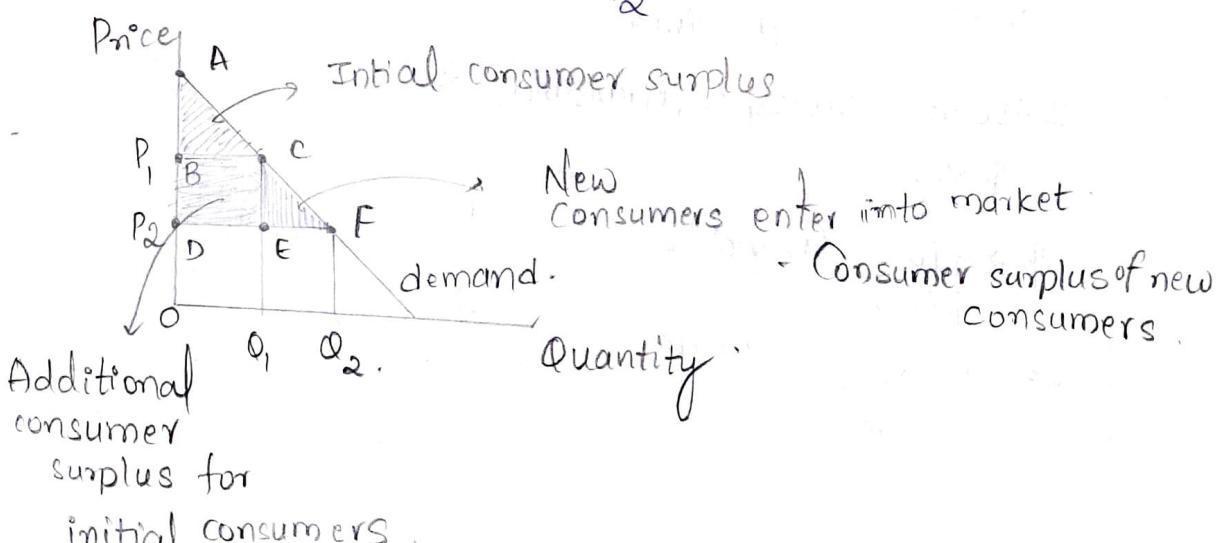
Consumer Surplus : A generalized view

(a) Consumer Surplus at price P_1



How the price Affects consumer surplus ?

(b) consumer surplus at price P_2



Producer surplus :

- Producer surplus is the amount a seller is paid for a good minus the seller's cost.
- It measures the benefit to sellers participating in a market.

Costs of four possible sellers -

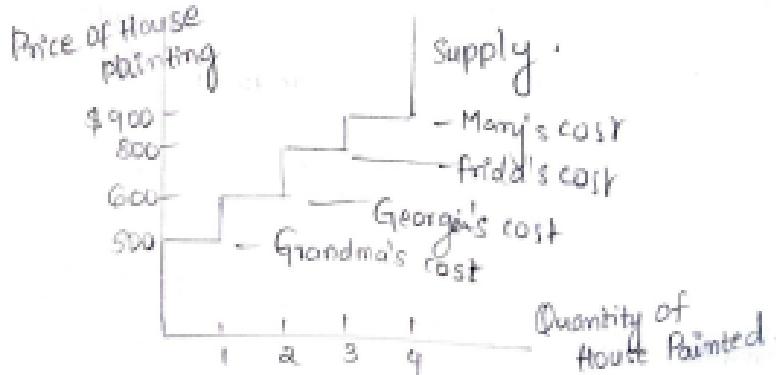
Seller Cost

Mary	\$900
Frida	800
Georgia	600
Grandma	500

- Just as consumer surplus is related to the demand curve, producer surplus is closely related to the supply curve.

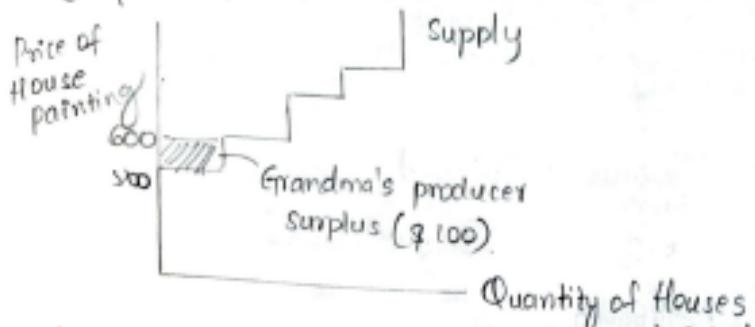
The supply schedule and the supply curve -

Price	Sellers	Quantity supplied
\$900 or more	Mary, Frida, Georgia, Grandma	4
\$800 to \$900	Frida, Georgia, Grandma	3
\$600 to \$800	Georgia, Grandma	2
\$500 to \$600	Grandma	1
Less than \$500	none	0.

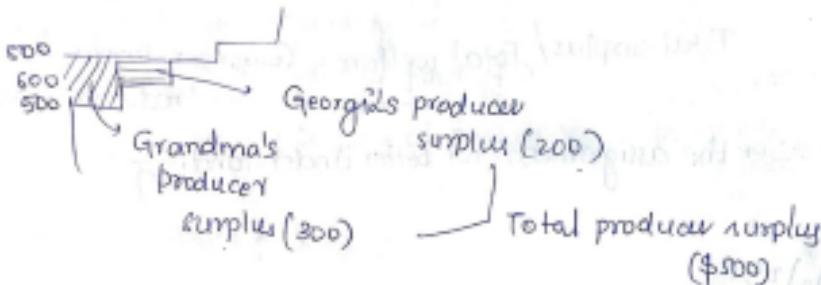


Measuring producer surplus with the supply curve -

(a) price = \$ 600.

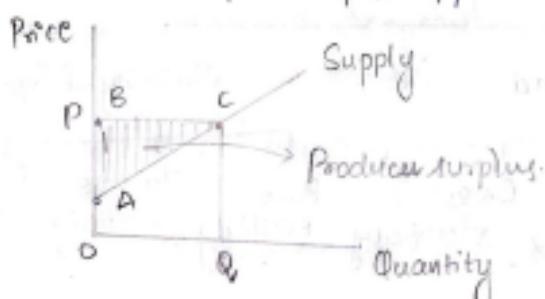


(b) Price = \$ 800



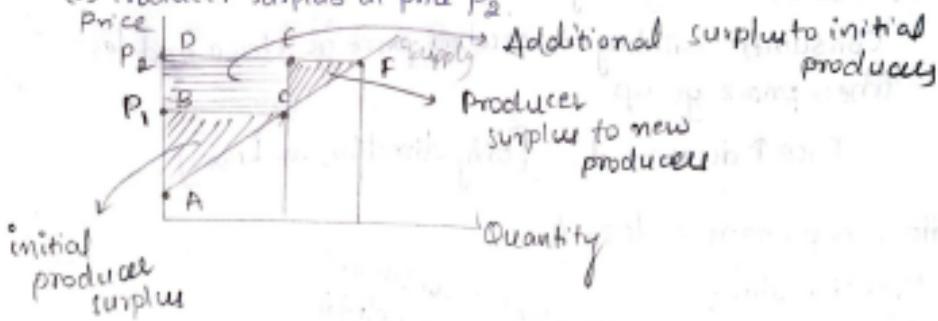
Producer Surplus : A generalised view

(c) Producer surplus at price P_1 ,

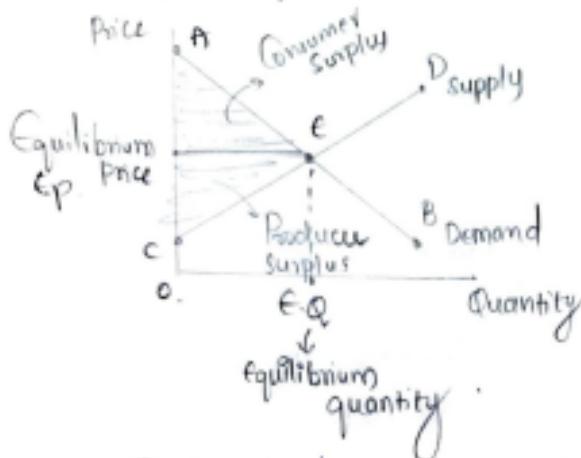


How the price Affects producer surplus ?

(d) Producer surplus at price P_2 .



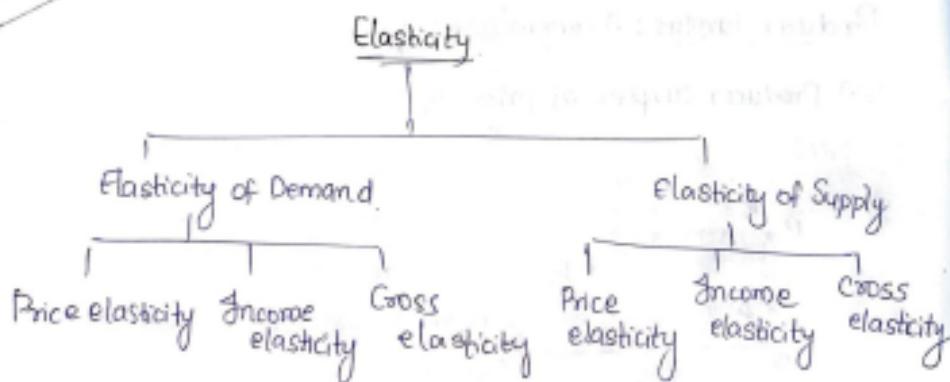
Consumer and producer surplus in the market equilibrium -



Total surplus / Total welfare = Consumer surplus + Producer surplus.

→ See the assignment for better understanding.

20/2/22



Price elasticity of demand

The law of demand says...

Consumers will buy more when price go down and less when prices go up.

Price ↑ demand ↓ [only direction we know]

How much more or less?

Does it matter?

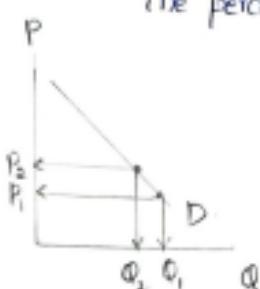
To whom? → producers & consumers, more helpful.

Price Elasticity provides an answer

It measures responsiveness to price changes.

The percentage change in quantity demanded

The percentage change in price of product -



Always
price elasticity is
negative.

$$Ed = \frac{\% \text{ change in quantity demanded of product } X}{\% \text{ change in price of product } X}$$

↓
so no need
to mention
symbol.

Why use percentages?

Unit of measurement definitely affects the elasticity.
So we are converting them into percentages.

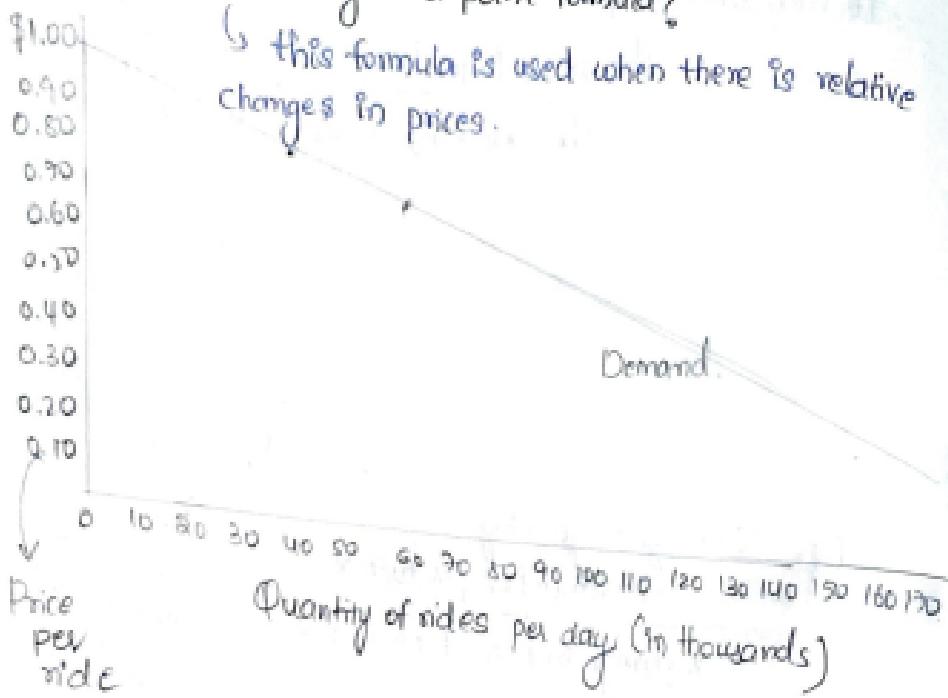
- Because, using absolute changes, our choice of units would arbitrarily affect our impressions of buyer responsiveness;
 - with a 1 rupee reduction in the price of a bag of popcorn, consumers increase their consumption from 60 to 100 bags (a 1 unit price change causes a 40 unit quantity change).
 - If we change the monetary unit from rupees to paisa, now it appears that it takes a price change of 100 units to cause the 40 time quantity change.

The Midpoint formula

$$Ed = \frac{\text{change in quantity}}{\text{Sum of Quantities}/2} \div \frac{\text{change in Price}}{\text{Sum of prices}/2}$$

Why we are using mid point formula?

↳ this formula is used when there is relative changes in prices.



- We use mid-point or arc method.

- First : % change in quantity between point A and B
 - change in quantity = $20,000$
 - Average quantity = $(60,000 + 40,000)/2 = 50,000$
 - Percentage change in quantity = $(20,000/50,000) * 100$

- Second : % change in price
 - change in price = $0.8 - 0.7 = -0.1$
 - Average price = $(0.8 + 0.7)/2 = 0.75$
 - % change in price = $(-0.1/0.75) * 100 = -13.33\%$

- Price elasticity of demand = $40 / -13.33 = -3$.

- * From A to B : Price elasticity = -3 (by using mid point formula).
- & B to A : $\frac{40}{13.33} = 2.99$
- * But by using % formula, A to B $\Rightarrow -4$
B to A $\Rightarrow 2.99$ } both are not same

Interpretations of Ed

Elastic Demand : Larger % change in QD.

When there is 1% change in price, Quantity demand will change more than 1%.

So numerator \geq Denominator

$$Ed = \frac{0.04}{0.02} = 2 > 1$$

$\Rightarrow Ed$ more than 1

Inelastic Demand : smaller % change in QD

$$Ed = \frac{0.01}{0.02} = 0.5 < 1$$

when there is 1% change in price, Quantity demand may change less than 1% (opp to elastic demand)

$\Rightarrow Ed$ less than 1 Ex:- medicines,

essential commodities.

Unit Elasticity : same change in Qd

$$Ed = \frac{0.02}{0.02} = 1$$

*Salt doesn't comes under essential commodity. Becoz whatever be the price, demand is same.

Extreme cases :-

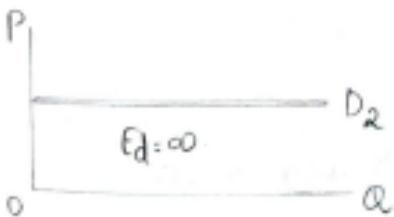
Perfectly Inelastic :- Ex:- salt



Perfectly elastic demand :-

small changes in price leads to unlimited changes in demand.

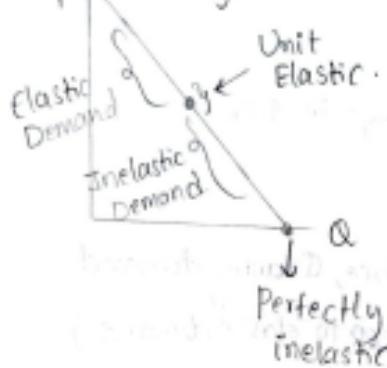
Ex:- wheat



Price elasticity along a Linear Demand Curve

- Elasticity typically varies over diff price ranges of the same demand curve.

p perfectly elastic.



- On a straight line demand curve, elasticity varies.

- For all down-sloping straight-line demand curves, demand is more price-elastic toward the upper left than the lower right.

- For each of the pairs of points, the changes in price and quantity demanded are the same.
- For high prices and low quantities, the % change in quantity is relatively large, whereas the % change in price is relatively small.
- The absolute value of the price elasticity of demand is thus relatively large.

↓
So, elastic demand.

"Hyperbola"

Price Elasticity of Demand of and shape of Demand curves.

- The relationship b/w elasticity and slope
 - If a demand curve has a constant slope (straight)

- (fine), the elasticity is not constant.
- If a demand curve has a constant elasticity (unit elastic), the slope is not constant.

Total Revenue and Ed

- Total Revenue (TR) = $P \times Q$
- When price changes ...
 - If TR changes in the opp direction from price, demand is elastic.
 - $TR \uparrow P \downarrow$
 or $TR \downarrow P \uparrow$
 - If TR changes in same direction as price, demand is inelastic.
 - in
 $TR \uparrow P \uparrow$ or $TR \downarrow P \downarrow$
 - If TR does not change when price changes, demand is unit-elastic.

Determinants of price elasticity of demand

- Sustabstitutability : Generally, the more substitute goods available, the greater the price elasticity of demand.
- Proportion of Income : Other things equal, the higher ^{the} price of a good relative to consumer's income, the greater the price elasticity of demand.
- Luxuries versus Necessities : In general, the more a good is considered to be a "luxury", the greater is the price elasticity of demand.
- Time : Generally, product demand is more elastic the longer the time period under consideration. Consumers

Often need time to adjust to changes in price.

Gross elasticity of demand

$E_{xy} = \frac{\% \text{ change in quantity demanded of good } x}{\% \text{ change in the price of good } y}$

Positive sign : Goods are substitutes

Negative sign : Goods are complementary

Zero or Near-zero Value : Goods are independent.

Income elasticity of demand

$E_i = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in income}}$

Positive sign : Goods are Normal or Superior

Negative sign : Goods are Inferior.

The costs of production

The law of Supply

- Firms are willing to produce and sell a greater supply quantity of a good when the price of the good is high.
- This results in a supply curve that slopes upward.

Firm's objective:

- The economic goal of the firm is to maximize profits.

A Firm's Total Revenue & Total Cost :

Total Revenue:

- The amount that the firm receives for the sale of its product.

Total cost:

The amount that the firm pays to buy inputs.

A Firm's profit:

• "Profit" is often referred to as producer surplus.

• It is the amount a seller is paid minus costs.

$$\text{Profit} = \text{Total Revenue} - \text{Total cost}$$

Costs as Opportunity Costs:

• A firm's costs of production include all the opportunity costs of making its own goods and services.

Explicit & Implicit Costs:

• A firm's cost of production include explicit costs and implicit costs.

- Explicit costs involve a direct money outlay for factors of production.

- Implicit costs do not involve a direct money outlay

Economic Profit Versus Accounting Profit:

• When total revenue exceeds both explicit and implicit costs, the firm earns economic profit.

- Economic profit is smaller than accounting profit.

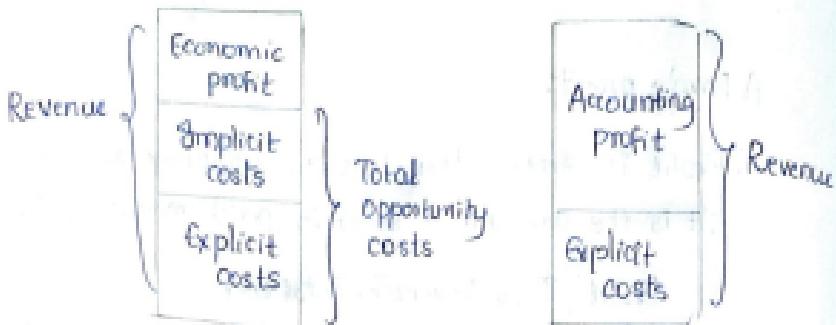
• Economists include all opportunity costs when measuring costs.

- Accountants measure the explicit costs but often ignore the implicit costs.

Land
Labour
Capital
Entrepreneurship

How an Economist Views a Firm

How an Accountant Views a Firm



Production and Costs

- A firm's costs reflect its production process.

The Production Function

- The 'Production function' shows the relationship b/w quantity of inputs used to make a good and the quantity of o/p of that good.

Marginal Product:

- The "marginal product" of any i/p into production is the increase in the quantity of o/p obtained from an additional unit of that input.

$$\text{Marginal product} = \frac{\text{Additional o/p}}{\text{Additional i/p}}$$

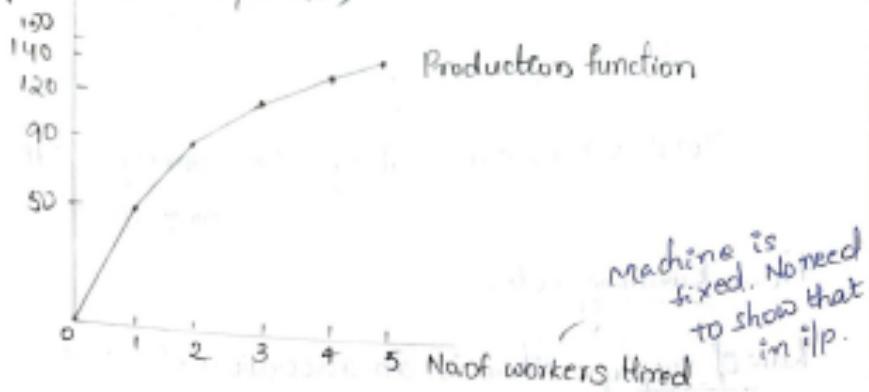
Diminishing Marginal Product:

- "Diminishing marginal product" is the property whereby the marginal product of an i/p declines as the quantity of the i/p increases.
- Example: As more and more workers are hired at a firm, each additional worker contributes less and less to production because the firm has a limited amount of equipment.

- The slope of the production function measures the marginal product of an i/p, such as a worker.
- When the marginal product declines, the production function becomes flatter.

A Production Function

Quantity of q/p (cookies per hour)



Production Functions and Total costs

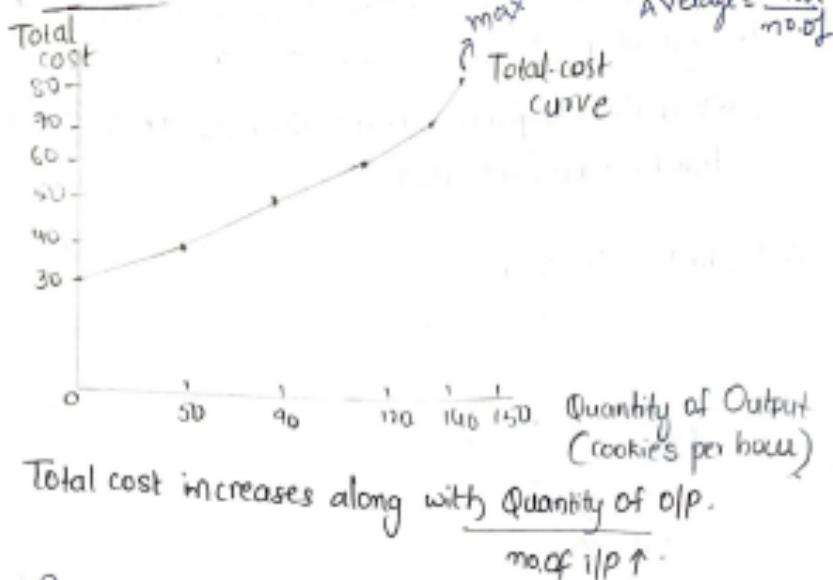
- The relationship b/w the quantity a firm can produce and its costs determine its pricing decisions
- The total-cost curve shows this relationship graphically.

Pricing decision \rightarrow is decided by its

A production function & Total Cost: cost and quantity it produces.

No. of workers	Output (Quantity)	Marginal Product of Labour	Cost of Factory	Cost of Workers	Total cost of Inputs
0	0		\$30	\$0	\$30
1	50	50	30	10	40
2	90	40	30	20	50
3	110	20	30	30	60
4	120	10	30	40	70
5	125		30	50	80

Total cost curve:



Total cost increases along with Quantity of O/P.

no.of I/P ↑

from Running notes

law of supply :- There is an association btwn price and supply such that when price increases, Quantity supplied also increases.

- Slope upwards.

Objectives:-
① Maximise the welfare of society
Reliance - strategy
↳ culture of Indian mobile.

② Economic objective is max profit

③ Sales Maximizer

Sustainable development

↳ Growth is sustainable.

④ Lead the Market

- power of leading the market

- Fix a price
- Create less unit profit and increase selling (selling more)

Explicit cost - All direct cost Eg: Manufacturing costs to a product line.

Implicit cost - All indirect cost Eg: Electric power, Salary to Gatekeeper etc.

Ex: 4 Labours → produce 1000 breads

An extra labour (5 labours) → produce 1300 breads.

Marginal product = 300 breads.

additional goods produced.

② Extra of 2 labours → produce 1400 breads

Marginal product = $\frac{1400-1000}{2}$ = 200 breads.

12/3/22

The Various Measures of Cost

- Costs of production may be divided into fixed costs and variable costs.
- Fixed costs are those costs that do not vary with the quantity of output produced.
- Variable costs are those costs that do not vary with the quantity of output produced.

TC - Total cost

TVC - Total variable cost

TFC - Total fixed cost

Family of
Total costs

$$TC = TFC + TVC$$

Quantity	Total cost	Fixed cost	Variable cost
0	\$ 3.00	\$ 3.00	\$ 0.00
1	3.30	3.00	0.30
2	3.60	3.00	0.60
3	3.90	3.00	0.90
4	4.20	3.00	1.20
5	4.50	3.00	1.50
6	4.80	3.00	1.80
7	5.10	3.00	2.10
8	5.40	3.00	2.40
9	5.70	3.00	2.70
10	6.00	3.00	3.00

Average costs \rightarrow each unit's production cost

- Average costs can be determined by dividing the firm's costs by the quantity of o/p produced.
- The average cost is the typical cost of each unit of product.

Family of Average Costs

AFC - Average Fixed costs

FC - Fixed cost

AVC - Average Variable costs

VC - Variable

ATC - Average Total cost

TC - Total

$$AFC = \frac{FC}{Q}, \quad ATC = \frac{TC}{Q}$$

$$AVC = \frac{VC}{Q}$$

Ex: 10 R\\$ \rightarrow selling price
 unit profit = 5
 Average cost = 6 Profit or loss?

Ans: loss of 1R\\$.

Quantity of Bagels/hour	FC	VC	TC	AFC	AVC	ATC	Marginal cost
0	\$2.00	0.00	2.00	-	-	-	-
1	2.00	1.00	3.00	2.00	1.00	3.00	1.00
2	2.00	1.80	3.80	1.00	0.9	1.90	0.8
3	2.00	2.40	4.40	0.67	0.8	1.47	0.6
4	2.00	2.80	4.80	0.50	0.7	1.30	0.4
5	2.00	3.20	5.20	0.40	0.64	1.04	0.4
6	2.00	3.80	5.80	0.33	0.63	0.96	0.6
7	2.00	4.60	6.60	0.29	0.66	0.95	0.8
8	2.00	5.60	7.60	0.25	0.70	0.95	1.0
9	2.00	6.80	8.80	0.22	0.76	0.98	1.2
10	2.00	8.20	10.20	0.20	0.82	1.02	1.4
11	2.00	9.80	11.80	0.18	0.89	1.07	1.8
12	2.00	11.60	13.60	0.17	0.97	1.014	1.8
13	2.00	13.60	15.60	0.15	1.05	1.20	2.0
14	2.00	15.80	17.80	0.14	1.13	1.27	2.2

Marginal cost → additional cost per each additional unit
of o/p.

AFC	AVC	ATC
3.0	0.3	3.3
1.5	0.4	1.9
1.0	0.5	1.5
0.75	0.6	1.35
0.6	0.7	1.3
0.5	0.8	1.3
0.43	0.9	1.33
0.38	1.0	1.38
0.33	1.1	1.43
0.30	1.2	1.60

For Bagels ⇒ AFC is decreasing as FC is constant
AVC is decreasing and then increasing
Starting increasing from 7th unit

ATC - same but starts increasing at 9th unit

$$\boxed{ATC = AVC + AFC}$$

 MC - same.

parabolically shaped curve

Note:- AVC starts increasing a little bit earlier than ATC

Firms stops production when

Marginal Revenue = Marginal cost
 becoz that is the last o/p that brings profit.

MC

- Marginal cost (MC) measures the increase in the total cost that arises from an extra unit of production.
- Marginal cost helps answer the following question.
 How much does it cost to produce an additional unit of o/p?

$$MC = \frac{\text{change in TC}}{\text{change in Q}}$$

$$= \frac{\Delta TC}{\Delta Q}$$

Quantity	TC	MC			
0	3.0	-	6	7.8	1.3
1	3.3	0.3	7	9.3	1.5
2	3.8	0.5	8	11.0	1.7
3	4.5	0.7	9	12.9	1.9
4	5.4	0.9	10	15.0	2.1
5	6.5	1.1			

Ex:- Ford's Total cost of producing 4 cars is \$225,000
TC of producing 5 cars = \$250,000.
Find ATC & MC of producing 5th car?

$$ATC \text{ MC} = \frac{250,000}{5} = \$50,000$$

$$\begin{array}{l} \text{Net cost} \\ \text{of O/P's} \\ \text{at 5} \end{array} \quad ATC \text{ MC} = 250,000 - 225,000 = \$25,000.$$

3/3/27

Why certain costs are fixed and certain are variable?

- Machine is fixed
 - labours are variable cost
- we are already invested on that
with production.

Irrespective of production, fixed cost is fix, doesn't vary along with the production during the production

Fixed cost - Ex:- Rent, interest on loans, Depreciation etc
Property Tax.

Variable cost - are costs that are a function of Output in the production period ~
eg: wages, cost of raw material
of labour

Vary Directly or sometimes proportionately with output.

Cost function

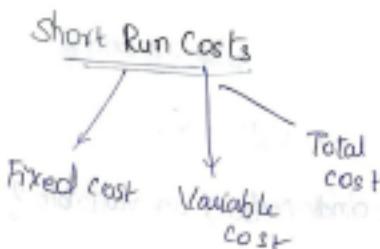
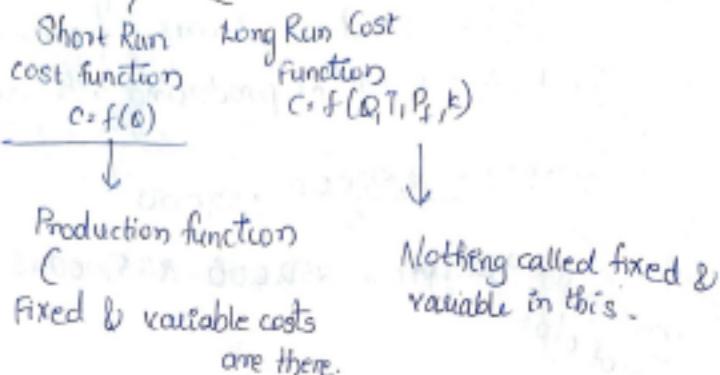
refers to the Mathematical relation b/w cost of a product and various Determinants of Costs

$$f = f(Q, P, L, K)$$

Total Cost Quantity Produced i.e. QP Factor price Capital

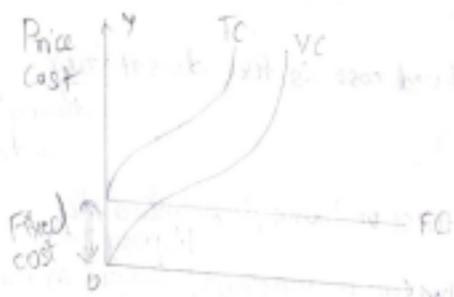
Techology

Cost Functions

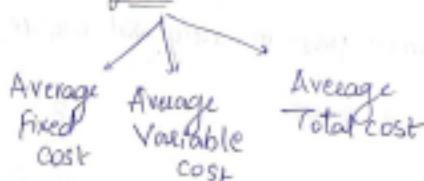


Note: Regular labour comes under Fixed.

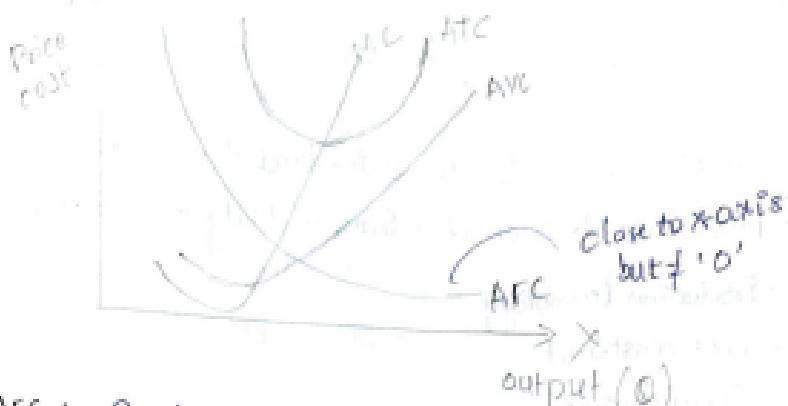
Short Run Total Cost Curves



Short Run Average Costs



Short Run Average & Marginal Cost curves



AFC : Fixed cost per unit of o/p

Steadily falls as output increases meaning thereby, it slopes downwards but does not touch X-axis as $AFC \neq 0$.

AVC : it first falls, reaches its Minimum and then rises again

ATC : not regular U shape, but almost
shape depends on shape of AFC & shape of AVC
= Shape of AFC + AVC

MC: Not every firm relies on fixed cost or variable cost.
There is another cost which is known as Marginal cost.

When it is falling, it is below AVC, but when it is rising it is above AVC.

- Firm analyzes where the lowest cost coming from average cost
- If we are getting each production cost at this, we are not able to see the product at market price, becoz we are producing inefficiently.
- MC crosses ATC at its minimum point
- Equilibrium point for a firm for production.

- This point is another indication where to produce.

Production Functions

using raw materials to produce something or act of transformation

- Theory of firms - helps to understand the market supply
- The production decision of a firm is likely to influence by raw materials into output.

- Production technology

- Cost constraint

- Input choices

$$q = F(k, L)$$

- Income
- Budget

- Short run and long run production functions

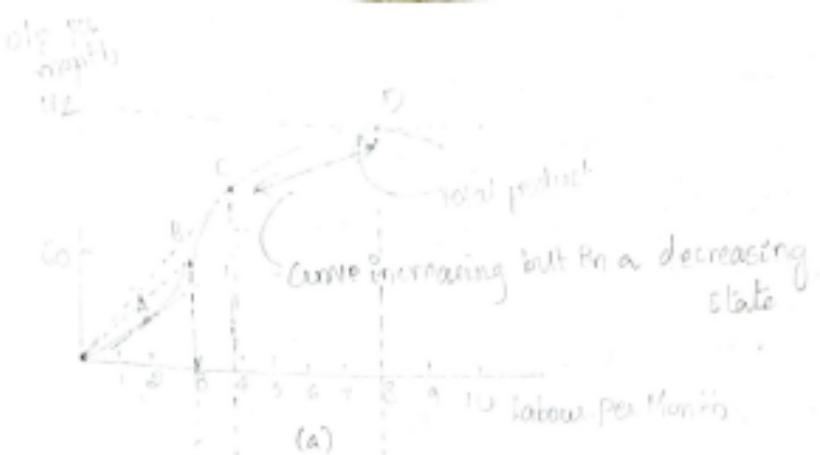
Capital labour \rightarrow Rest all (i.e. land, organization, technology)

Production with one variable input assumed to be constant bcoz Usually use 2-dimensional graph

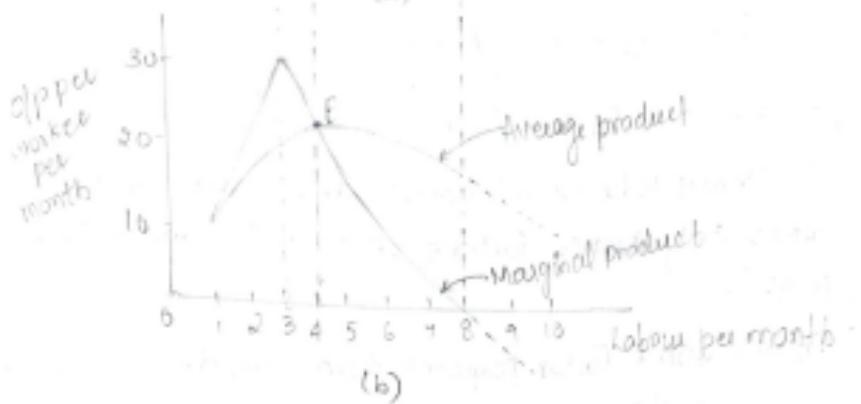
- A firm can increase more output only by decreasing increasing more variable factor.

Amount of Labor (L)	Amount of Capital (k)	Total O/P (q)	Avg Product (q/L)	Marginal Product (dq/dL)
0	10	0	-	-
1	10	10	10	10
2	10	30	15	20
3	10	60	20	30
4	10	80	20	20
5	10	95	19	15
6	10	108	18	13
7	10	112	16	4
8	10	112	14	0
9	10	108	12	-6
10	10	100	10	-8

Slope of the product curve.



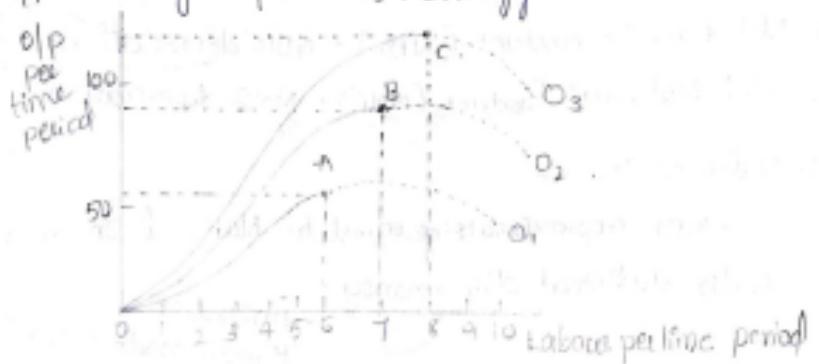
(a)



(b)

The Law of Diminishing Marginal Return

- Applies to a given production technology



National Income & its Concepts

Now we are going to study Macro economics

Measuring the Value of Economic Activity:

Inflation
National Income

I. Gross Domestic Product (GDP): Money value of all final goods and services produced within the domestic territory of a country during in an accounting year.

• GDP: (prices of mobiles × Quantity of mobiles) + (price of laptops × Quantity of laptops)

Commodity based GDP of Laptops	Price (M) In '000'	At Mobiles		At Laptops	GDP in lakhs.
		Price(L) in '000'	No. of Mobiles		
2019	Rs. 20	20	Rs. 50	10	(20×20 + 50×10)
2020	Rs. 25	20	Rs. 60	10	(25×20 + 60×10) = 11

Effect of "Inflation" → price changes.

2. Gross National Product (GNP):

Money value of final goods and services produced by domestically owned factors of production within a given period.

- GNP: GDP + factor payment from abroad - factor payment to abroad.
- the difference is net income earned by foreigners.

3. Net domestic product (NDP): GDP - depreciation

allow for
those
depreciation
↓

4. Net National Product (NNP): NDP - depreciation

final is
NDP.

5. National Income:

• NNP approximately equal to National Income (NI),
with statistical discrepancy

- emission
- Human made errors.

6. Personal Income:

National Income - Indirect taxes

- Corporate profits
- Social insurance contribution
- Net interest
- + Dividends
- + Govt transfers to individuals

buying a product
we are paying tax

7. Personal Disposable Income (PDI):

$$= PI - [\text{Personal tax & non-tax payments}] .$$

Personal
Disposable

Based on
constant prices.

Real versus Nominal GDP

Based on
current prices.

- Real GDP : Not influenced by changes in prices
- Nominal GDP : measured at current prices.
- Real GDP : Measured at constant prices
- GDP deflator: = $(\text{NGDP} / \text{RGDP}) \times 100$
- GDP PCI
- Are GDP a good measure of economic well being?
(It won't measure happiness)
- Physical Quality of life Index (WE, IMR, LEB)
- Human Development Index (LEB, Education Index, Standard of living).
- Gross National Happiness Index (Government, socio-economic development, cultural preservation, environmental conservation)

Measurement of National Income

- Can be measured by three alternative methods:
- i) Product Method (GDP)
- ii) Money value of all final goods and services.

iii) Income method - From today's activity they earn 1000/-

Capital = interest	350	Interest on capital spent
Labour = wages	250	
Land = rent	200	Rent on land spent
Entrepreneurship Organised	100	Organized profit
	1000	

(ii) Expenditure Method. → BEST METHOD to measure NATIONAL INCOME

- Consumption (C) : Not durable, durable and services
- Investment (I) : Fixed capital : Goods bought for future use
- Government purchases (G) - Federal, state and local Govt's purchases.

Net exports (NX) . Net trade with other countries.

$Y = C + I + G + NX$ (National Income Identity).

Calculate GDP (income method and expenditure method)

Sno	Items	Rs. in crores.
1	Interest	150 - Income
2	Rent	250 - Income
3	Govt final consumption expenditure	600
4	Private final consumption expenditure	1200
5	Profits	640 - Entrepreneurship
6	Compensation to employees	1000 - Income (wages)
7	Net factor income from abroad	30
8	Net indirect taxes	60 } -
9	Net exports	-40
10	Consumption of fixed capital	50 $\leftarrow -50$
11	Net domestic capital formation	340.

National Income :-

- Income method = $150 + 250 + 640 + 1000 = 2040$ cr

- Expenditure method. $600 + 1200 + (-40) + 340 + (-50) = 2050$ cr

Measuring the cost of living

Consumer Price Index:

- Measure the changes in price paid by consumer for goods and services.
- The market value of a typical basket of goods
 1. Select items for the basket
 2. Find prices
 3. Total cost
 4. Pick base year and compute index
 5. Compute inflation rate

CPI Basket

- Food & Beverages
- Cereals and Product
- Meat and Fish
- Egg
- Milk and products
- Oils & fats...

$$CPI = (\text{Total cost of this year} / \text{Total cost in the base year}) * 100$$

$$\text{CPI inflation rate} = \left(\frac{CPI_{t_2} - CPI_{t_1}}{CPI_{t_1}} \right) * 100$$

<u>Year</u>	<u>Total</u>	<u>CPI</u>	<u>Inflation</u>
2010	522	100.00	---
2011	544	104.2	4.2%
2012	532		
2013	560		
2014	577		
2015	600		

How does CPI Help?

- The RBI and other statistical agencies study CPI to understand the price changes of various commodities and a tool on inflation.
- . Also helpful in understanding the real value of wages and salaries.

CPI in India

Labour Bureau

- CPI for Industrial Workers (IW) - 1.1.2016
- CPI for Agricultural Labourers (AL)
- CPI for Rural Labourers (RL) and
- CPI for Urban Labourers

MoSPI

- CPI for Urban Non-Manual Employees (UNM E).

Problems with CPI

1. Substitution
2. New Goods
3. Quality
4. may not be applicable to all population group
5. Social and environmental factors are beyond the scope
6. Two areas can't be compared.

Running notes :

- Macro economics is nothing but dealing from the perspective of country or nation).

An Automobile Industry → Micro/Macro?

it is one particular industry, so micro

if we are dealing with all industries then it is Macro.

Now we are studying Macro economics perspectives

National Income & its concepts

Is a country's

- Developing
- Developed
- Under developed

- How we are classifying these
- Why we are classifying
- What are the criteria to differ these?

GDP
(Gross Domestic Product)

GDP: It is the money value of all final goods and services produced in a country during a particular year.

year
Accounting year / Financial
April 1st to March 31st → years

- We can't change immediately
- We have to change from the root, it takes time.

General - Jan 1st to Dec 31st
year.

Money Value →

problems in
telling the final
consumption.

1 kg banana produced
1 litre oil produced
1 litre coal produced

by diff measuring units

Solution: - Convert them into
monitoring value

Why final goods?

A farmer - produced 100 worth of wheat

↓
Seller sold to 150 worth

↓
(Aata farm) - sell it to bakery owner for 250

↓
Bakery owner sells bread - 550.

- Value of transaction

- Problem \Rightarrow Multiple times we count
which is known as "Double Count".

- In order to avoid that, we use the value of final goods provided.

Bread 550

We have to consider the
value of sandwich

↓

Sandwich 600

↓

Final good.

Any

- Other method other than considering final good value is

"Value Added"

100

↓

150

60 value
added

Count how much value
created each time.

GST \rightarrow Goods & Services tax \rightarrow final good tax

VAT \rightarrow value added tax

↓
taxes imposed at every stage of value
creation.

Services? - many services
transport

Not only goods, we have
to consider services within
the domestic country.

all things within this
should be considered
for GDP.

Within the
Geographical country.

Amazon \Rightarrow OUR GDP



Who is producing doesn't matter but where it is producing does matter.

Actually \Rightarrow GDP is Quantity of goods & services but for our understanding we converted into money value.

9 lakhs \rightarrow 11 lakhs

↓
Not the real GDP increased

Problem due to "Inflation"



How to solve this?

- We can fix base year (Base Year Price)
- Current year price

Personal Income:

Corporate profits \Rightarrow old enterprises making profit



Not distributed to public

Social insurance contribution \Rightarrow from salary we are giving for earthquakes \rightarrow social insurance.

Net Interest \Rightarrow it is portion of income money we have to give to lender.

either borrowed or
we perceive interest from bank etc

& paying more

Dividends \Rightarrow money given to the share holder

Govt transfers to individuals \rightarrow - pensions

extra money coming to the hands of public. ↓
subsidies - becaz of govt policies

Direct tax → on income

↳ every individual who crossed the limit of income.

6/1/22

Nominal GDP → based on current prices

↳ PFCE - Private final consumption expenditure

GFCE - Government final consumption expenditure

GPEF - Global Field Experience Fund

Capital formation



Total investment

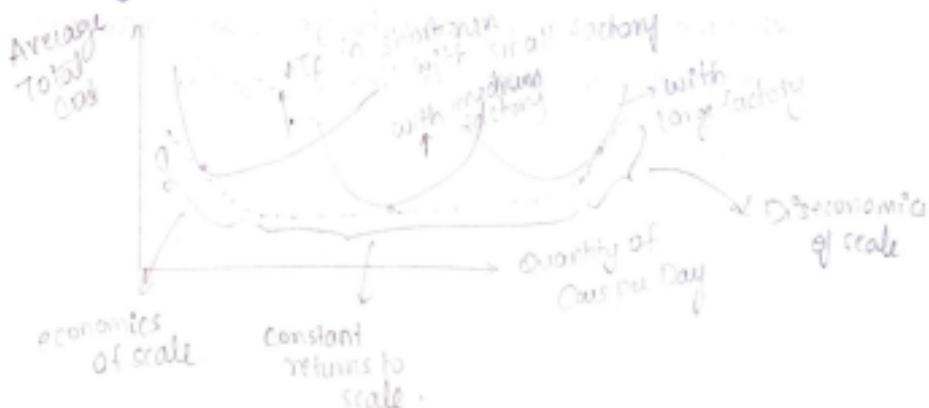
(Continuation of costs P1)

Costs in the Long Run

- For many firms, the division of total costs between fixed and variable costs depends on the time horizon being considered.
 - In the short run some costs are fixed.
 - In the long run fixed costs become variable costs
- Because many costs are fixed in the short run but variable in the long run, a firm's long-run cost curves differ from its short-run cost curves.

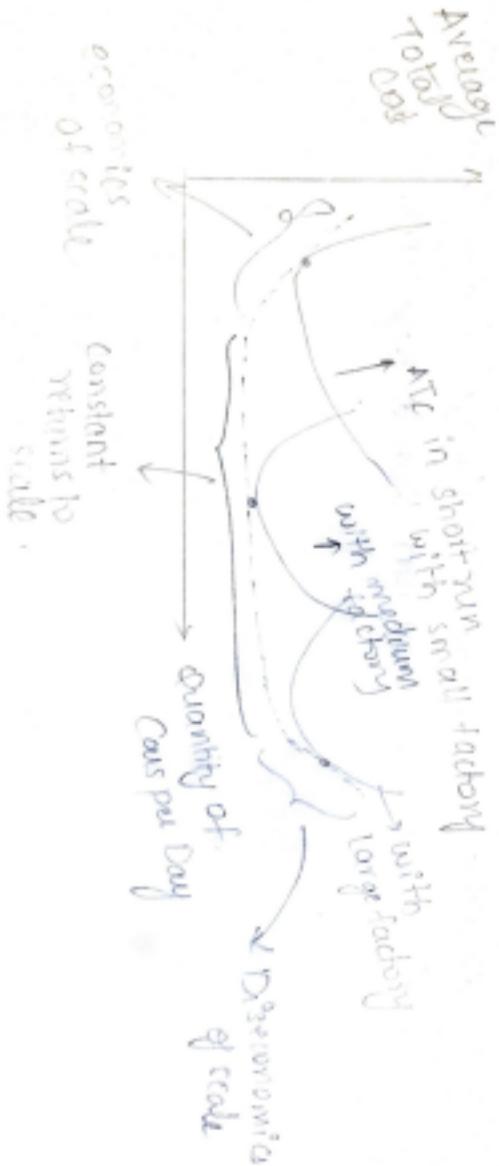
U-shaped long-Run Average Total Cost

- "Economies of scale" occur when long-run average total costs falls as the quantity of output increases.
- "Diseconomies of scale" occur when long-run average total cost rises as the quantity of output increases.
- "Constant returns to scale" occur when long-run avg total cost stays the same as the quantity of output increases.



rises as the quantity of output increases.

- "Constant returns to scale" occurs when long-run avg total cost stays the same as the quantity of output increases.



Conclusion

- The goal of firms is to maximise profit, which equals total revenue minus total profit cost.

$$\text{Profit} = \text{Total Revenue} - \text{Total cost}$$

- Some costs are explicit. Other costs, such as opportunity costs, are implicit.
- A firm has fixed and variable costs. Fixed costs don't vary with quantities produced.
Variable costs do.
- Avg total cost = Total cost / Quantity of o/p
 - Marginal cost - Total cost rises if o/p increased by 1 unit.
 - Marginal cost generally rises with quantity of o/p.
Avg Total cost first falls as o/p increases and then eventually rises with further o/p.
- A firm's total costs often depend on time horizon being considered
 - Many costs are fixed in short run but variable in long run
 - When the level of production changes, avg total cost may rise more in the short run than in long run.