NAYAK SIR

ECO

Macroeconomics (Theory)

Relative scarcity decides price.

Utility ✓ → Satisfies wants → may not be useful (cigarette, diamond)

Usefulness ✗ → satisfy needs → necessary. (water)

- Free goods → Plenty available
- Economic goods → Not plenty, they are scarce.

River water : Earlier free good.
Now economic good, due to contamination

Resource → many use

Labour → Unskilled
→ Semi skilled
→ Skilled

Labour is sold then it is converted to ₹/$

more demand → more price

Individual Producers → tries to increase UTILITY

Limited resources → ~~Increase utility~~ → maximise PROFIT ₹

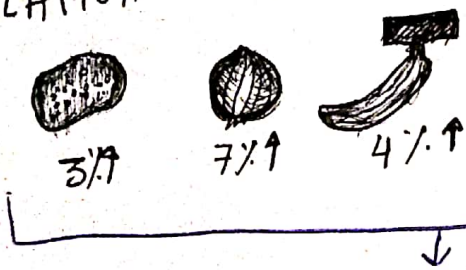
Monopolised → only one producer → ↑ ₹

Oligopolised → competition → ↓ ₹

microeconomics → talks about individuals
macroeconomics → talks on an aggregate level

LINKED

- INFLATION : General Rise in Price.

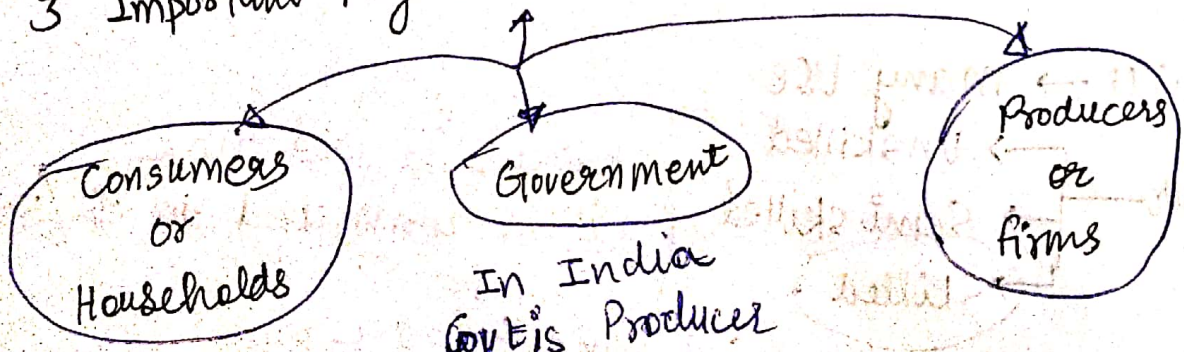


5%↑

⇓

5% Inflation.

- 3 Important Players in Economics.



In India Govt is Producer (PSUs) and a consumer as well

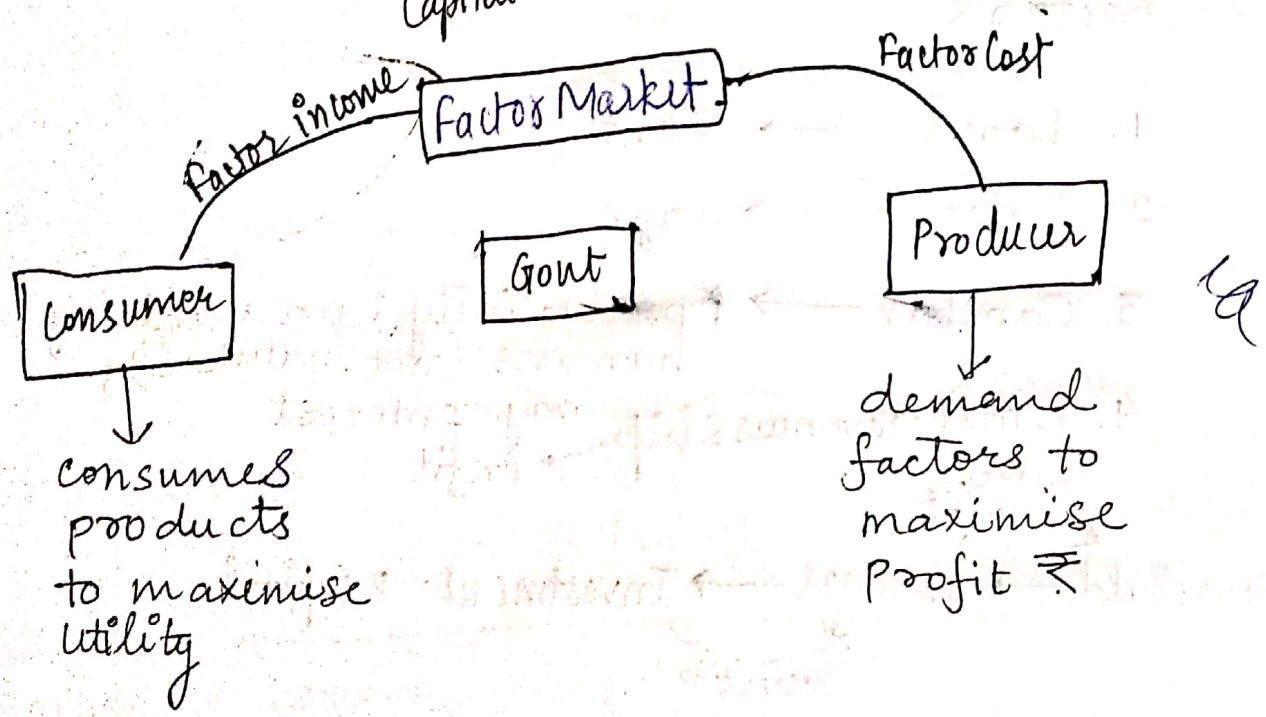
Q: How are they linked?

Factor market

⇒ Factors?

- Land
- Labour
- Capital → Helps improve productivity of the labour
- Entrepreneurship → Uses land, labour, capital to generate PROFIT ₹.

Land → Rent
Labour → wage
Capital → Interest
→ Profit



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⊙ 3 Sectors

- Primary → Agriculture
- Secondary → Manufacturing
- Tertiary → Services

• Producers produce Goods + Services

Producers demand factors from factor market

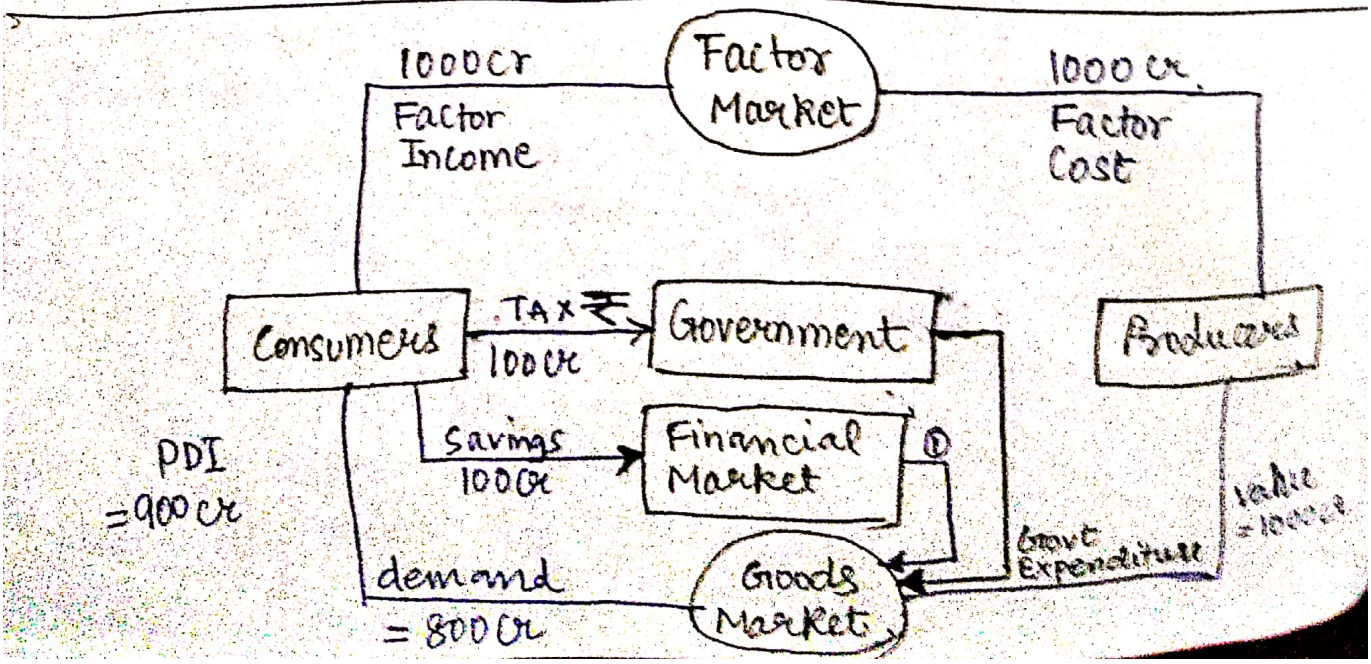
Factors

1. Land → Rent
2. Labour → Wage
3. Capital → ↑ productivity ; produced by humans (not natural);
4. Entrepreneurship → pay Interest / Profit

Household → Savings → Investment → Capital

Interest (Savings → Household)

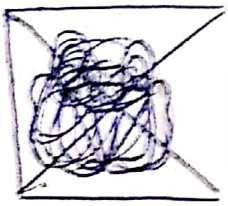
Interest to Bank (Investment → Savings)



After paying the Tax the the income left
→ Personal Disposable Income
(PDI)

Generally households don't use up complete PDI, this gives rise to financial markets.

Money ₹ → Medium of Exchange for Goods and Services.
→ Storage of value for
→ Generates Interest
Hence an ASSET



* Govt of India gives Deficit Budget

3 types of Budget
- Deficit → Exp > Income
- Surplus → Exp < Income
- Balanced → Exp = Income

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① Investment Goods → Used by producers to generate ↑ GDP

Aggregate Demand = Aggregate Supply.

AD = AS → Equilibrium.

AD > AS → Prosperity

AD < AS → Recession

Here we are talking about income stability and unstability not price.

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AD > AS ⟶ Prosperity

Leads to inflation of prices.

Most Dangerous ⟶ Recession.

EQUILIBRIUM INCOME

"KEYNESIAN THEORY" J.M. KEYNES

- Whether equilibrium is possible on itself.

$Y = C + S$ ⟶ supply

Income ↳ consumption

This is not equilibri
as it is always tow

$Y = C + I$

↳ Investment

$S = I$

◉ Equilibrium is always for a time period. It is not taken for particular instant.

Income is a flow where wealth is a stock

If income produced in a year using the factors of production in an economy is in equilibrium

then ⇒ AD = AS

Equilibrium of Income ≠ Equilibrium of wealth

If considering Govt Role

$$Y = C + S + T$$

T → Taxes

Sum total of expenditure should be equal to sum total of income.

$$\sum \text{Injections} = \sum \text{Leakages}$$

Demand = Supply.

$$S + T = I + G$$

G → Govt expenditures.

$$Y = C + I + G \quad \checkmark$$

Now we consider only

$$Y = C + I$$

$$S = I$$

➡ Why Keynesian Theory?

- Given during depression of 1930's. (Great Depression)
- Till 1930s → Classical Theory (Adam Smith).
  This theory Believed that equilibrium will be attained Automatically if the market is free floating. Assuming perfect competition the market would assume equibibrium itself.
- Keynesian gave a model that the depression was due to faulty Classical Theory.
- By 1939 the economy was better.

J.B.Say → Supply creates its own demand.
Keynes → Demand has to be created. when there is supply.

Here we will talk about creating 2 Demands.

CONSUMPTION ~~DEMAND~~ FUNCTION

We talk about aggregate demand.
The demand is based on Psychological behavio
We consider ~~com~~ consumer, producer, Govt
all are rational. However in real life
situation this may not always be true.

Rationality :- Price ↓ consumption ↑
Price ↑ consumption ↓

Not Rational :- Depends upon behaviour
Emotional, Sentimental.

$C = a + by$ → Induced ~~Income~~ Consumption.
by → current income,
a → Autonomous Consumption

$b = \frac{dc}{dy} < 1$ C ↑ if income ↑

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Consumption function

$C = a + by$

- a → autonomous consumption
- by → Induced consumption
- y → current income

Properties

1.) Marginal Propensity to consume MPC is constant.

2.) $0 < MPC < 1$

3.) At zero level of income average propensity to consume (APC) is ∞, Then it defines with the rise in income but will always remain above MPC.

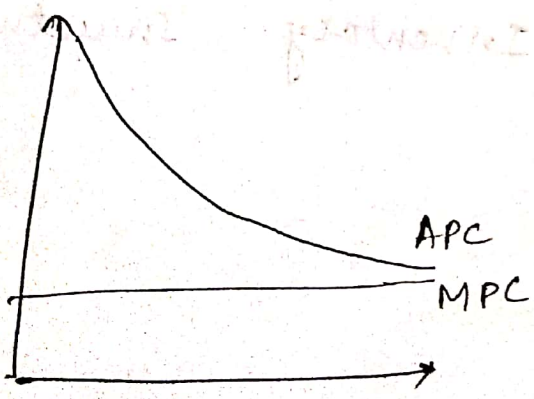
$$MPC = b = \frac{dc}{dy}$$

$$APC = \frac{c}{y}$$

Long Run behaviour according to Keynes:

$$C = by$$

$$APC = \frac{c}{y} = \frac{a}{y} + b$$



Investment function

Investment :- Addition to capital stock

Investment ≠ capital
(flow) (stock)

→ Income is flow, wealth is stock
money is stock.

Income = money × velocity
= total money supplied × rate of change of hands experienced by that money.

Flow Variables :- Changes value in short time

Stock Variables : has constant value over a long time interval.

$$I_t^g = K_t^g - K_{t-1}^g$$

i.e gross investment in time period t = gross capital stock in time t − period (t-1)

$$I_t^n = I_t^g - D$$

i.e net investment in time period t = gross investment in time t − Depreciation

Similarly $K_t^n = K_t^g - D$

net capital stock in time t = gross capital stock in t − Depreciation

★ In context of net capital stock or increase, talking about net investment is better, while in context of generating employment talking about gross investment is better.

Types of Investment

1. Business fixed Investment
2. Residential Investment
3. Inventory Investment
   → Stock piling activity.

Inventory Investment

- Raw materials
- Semi-finished goods
- finished goods.

$I = f(MEC, r)$

- MEC → Marginal Efficiency of Capital
- r →
  - Rate of Investment
  - Cost of raising Capital
  - Cost of Borrowing

MEC is that discount rate which equalises the present value of ~~pro~~spective yield with the initial amount of capital income

$$\sum_{i=1}^{n} \frac{R_t}{(1+i)^t} - \sum \frac{C_t}{(1+i)^t} = 0$$

$\frac{R_t}{(1+i)^t}$ → MEC (Marginal efficiency of capital)

C_t = Capital required for business

R_t = Annual ~~interest Rate~~ returns

If a company wants to set up a plant or a business the initial capital required if different from recurring costs
& (costs required when going through)

t = time period

t = 1 ⇒ all money invested in 1 year

t = 2 ⇒ " " " 2 year

Annual returns are net returns (Gross returns − Expenses)

If life of a project is 5 years then R_1, R_2, R_3, R_4, R_5.

- MEC → discount Rate
- "i" is annual rate of return
- "r" is bank interest rate

If i > r then only project is profitable

$i > r$ {Projected accepted}

$i < r$ {Project rejected}

$i = r$ {Neutral}

Similarly for an economy the MEC should be greater than cost of raising capital.

For Economy MEC > Rate of Interest

According to Keynes ⇒ MEC = Internal rate of return.

Prior to Keynes the economists believed

$$I = f(r) \quad \left[I \propto \frac{1}{r} \right]$$

But Keynes gave the theory that

$$I = f(MEC, r)$$

⇒ Declining in the rate of interest will attract more investment according to classical economics

⇒ But according to Keynes MEC is more imp than r.

Example : Suppose TATA wants to invest Rs 1000cr on a steel plant in some state in 2017. The expected revenues are (for a 5yr ter

2018	2019	2020	2021	2022
300	400	500	400	600

For calculating MEC.

$$\frac{300}{1+i} + \frac{400}{(1+i)^2} + \frac{500}{(1+i)^3} + \frac{400}{(1+i)^4} + \frac{600}{(1+i)^5} - C_0 = 0$$

Say $i > r$.

$i = 4\% > r = 3\%$.

then project will be accepted.

Example: Why company choose a particular location to invest, but all over India rate of interest is same. Why some states are more developed than others?

Ans: Due to MEC.

Company sees more MEC in a x-state compared to state y

Same goes for India and any other country Companies invest more in other countries.

DETERMINANTS OF MEC

① Companies are guided by expectations (expectations about profit, Business environment)

expectations → Short term
→ Long term

We want economy to behave as per our expectations

- Long term → Govt change (new govt may raise problem for licenses issued by previous Govt)
- Our fundamentals are ok so long term expectations are positive.

#What are the Basis of Positive expectations?

Basis of Positive (+ve) expectations are

(1) Infrastructure
(2) Governance
(3) Labour standard
(4) R & D
(5) Location
(6) Human Capital

(1) Infrastructure:

Good roads for connectivity
Quality Plants, Airports etc,
In China Infrastructure is better than In

(2) Governance:

Investors look for stable Govt and
Govt which has stable policies.

(3) Labour Standards:

Labour policies comes under state.

(4) R & D

In India we hardly invest in R & D.
Most of the things are imported.
Only in TATA motor there is some R & D.

(5) Location

India has a location Advantage:
India has a lot of coastal zone but
unfortunately we are not able to utilize
this advantage

(6) Human Capital:

Better Skill Set.
India has more people in b/w 18 to 65
(Demographic Divide
Better education must be provided for
Better human capital.