30-10-12

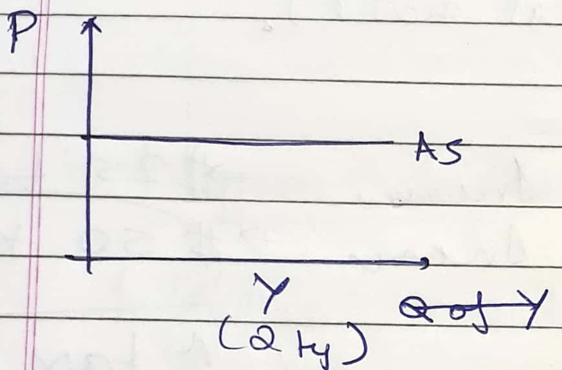
Keynesian Mac.

Ref. : Dornbusch and Fischer

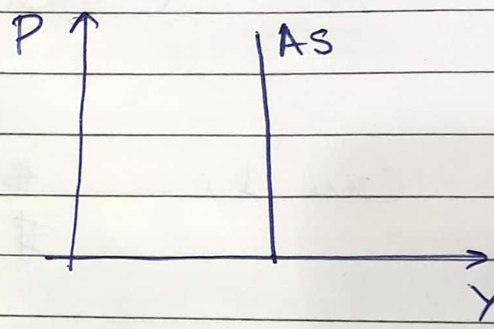
→ Difference b/w Keynesian macro. & classical macro.

- Time horizon is different.
- Changes dynamics.

Keynesian (Short run)

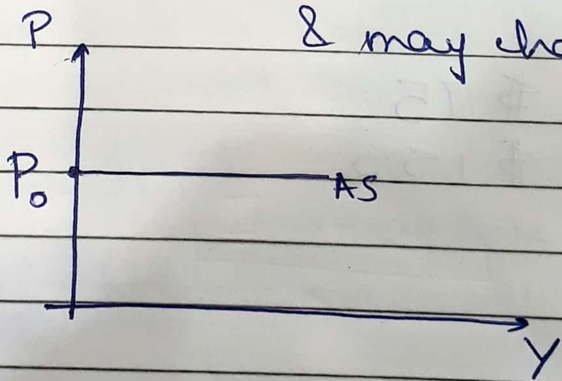


Long Run



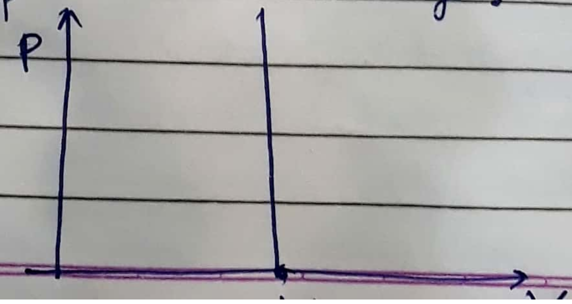
- Not super long run.
- "full employment" level ~~level~~ determines o/p & may change in ↑ long run.

- Keynesian



→ Because there is unemployment, firms can obtain as much labour as they want at the current wage.

- Long-Run



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Based on the assumption that labour mkt is always in equilibrium at the full employment level.
Since labour force is fully employed
∴ Y cannot ↑ even if P ↑

Labour Mkt equilibrium underlying vertical schedule is maintained ~~via s~~ by speedy adjustments in nominal wage.

- Economy is in Equilibrium, AD shifts to right, i.e at existing price demand goes ↑.
- Firms try to obtain more labour offering higher wages
- But more labour not available.
- Hence Wages ↑, making the firms raise the prices of good but ~~Q~~ Y (o/p) is const.

In the Keynesian model, the central simplific. is the ~~so~~ assumption that
Prices do not change at all.
Firms are willing to sell any amount of o/p at the Given level of prices
Hence AS curve is flat.

Relation b/w AD and equilibrium o/p

o/p ~~is~~ at the equilibrium level when qty produced = qty demanded

$AD = C + I + G + NX$

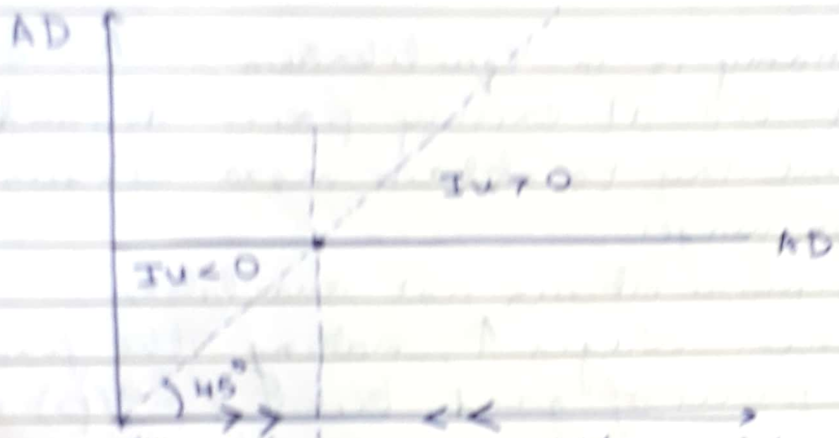
Not P-Y space

Keynesian AD →

$AD = C + I + G + NX$

I → Planned expenditure on Capital Goods

I_u → Unintentional Investment
→ Unplanned (At eq = 0)



AD > Y → $I_u < 0$ → Inventory used up

AD < Y → $I_u > 0$ → Inventory build up.

$$AD = C + \underbrace{I + G}_{\bar{I}\ \&\ \bar{G}\ \text{remain constant}} + \cancel{NX}$$

NX → 0 : closed economy

$$C = \underbrace{\bar{C}}_{\text{const.}} + \underbrace{c}_{\text{marginal propensity to consume}} Y$$

→ c : Increase in C per unit ↑ in Y

$c \in (0,1)$

• Personal savings (Y includes taxes / or dich taxes for now)

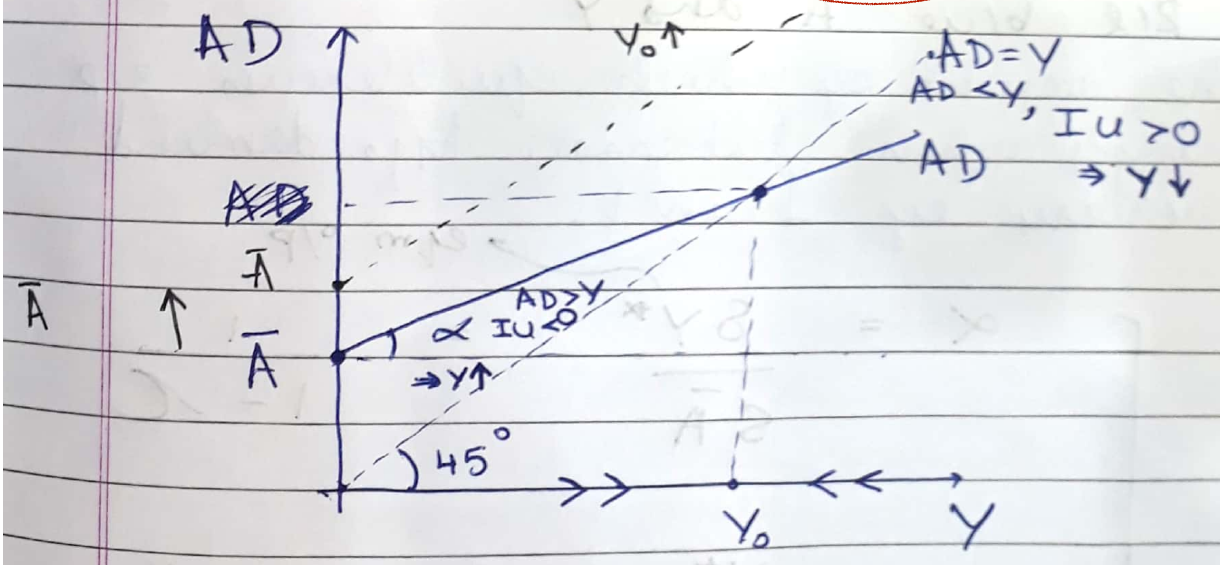
$$S = Y - C$$

$$S = -\bar{C} + Y(\underbrace{1 - c}_{\text{marginal propensity to save}})$$

$$AD = \bar{C} + cY + \bar{I} + \bar{G}$$

$$AD = \underbrace{(\bar{C} + \bar{I} + \bar{G})}_{\bar{A}\ (\text{const})} + cY$$

autonomous demand even if my production is zero i will require this much amount



→ For $Y < Y_0$, $AD > Y$, firms inventories are falling $I_u < 0$, ∴ they Increase prodn., conversely for $Y > Y_0$, $AD < Y$, $I_u > 0$, Inven. ↑ ⇒ they cut Y.

→ Solving,

$$AD = Y$$

$$Y_0 = \bar{A} + c Y_0 \quad \text{(Solving)}$$

$$(1 - c) Y_0 = \bar{A}$$

$$Y_0 = \frac{\bar{A}}{1 - c}$$ → Autonomous demand

31-10-17

– Keynes - Multiplier theory

- Keynes introduced it.
- It was a policy related theory which analysed that when Autonomous comp. of expenditures change then by what amount does Y change?

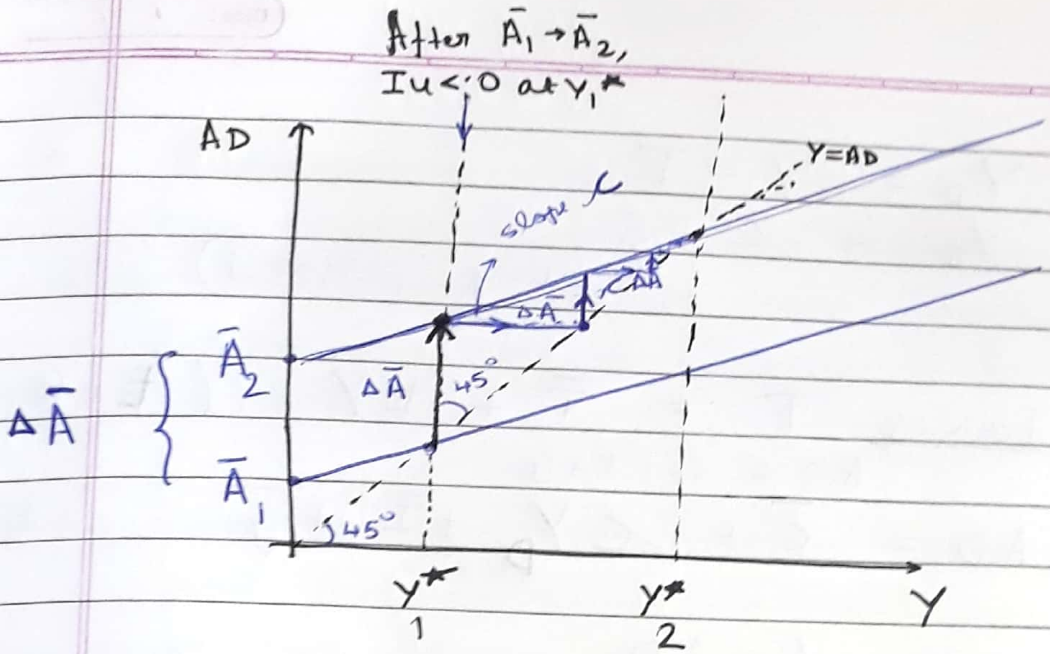
→ R/l b/w $\bar{A}$ and Y

- The amount by which equilibrium o/p changes when Autonom. Agg. demand increases by 1 unit.

eqm o/p

$$\alpha = \frac{\delta Y^*}{\delta \bar{A}} = \frac{1}{1 - c}$$

→ using $Y^* = \bar{A} + c Y^*$



→ Initially just after ~~Y_1^*~~ $\bar{A}_1 \to \bar{A}_2$;

$$Y_1^* \to Y_1^* + \Delta\bar{A}$$

then, $Y_1^* + \Delta\bar{A} \times c$ .....

$$\Rightarrow \Delta Y = \frac{\Delta\bar{A}}{1-c} \quad \text{(Infinite GP)}$$

Govt. Sector

$G = \bar{G}$ Taxes

(Y_D) Disposable Income: Net Income available for spending by households after receiving transfers from and paying taxes to the Govt.

Net Y

Net taxes $= T =$ taxes $-$ transfers

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$$Y_D = Y - T$$

$$Y_D = C + S$$

$\hookrightarrow$ saving (personal)

<u>Nett taxes</u> $T = \bar{T} + tY \quad (t \in (0,1))$

$$AD = C + I + G$$

$$AD = \bar{C} + cY_D + \bar{I} + \bar{G}$$

at equ $\quad Y = AD$

~~Y_D $C + S = C + I + G$~~

~~Y_D~~

$$\Rightarrow Y^* = \bar{C} + c(Y^* - \bar{T} - tY^*) + \bar{I} + \bar{G}$$

$$Y^* = \bar{C} - c\bar{T} + \bar{I} + \bar{G} + (c - ct)Y^*$$

$$Y^*[1 - c(1-t)] = \underbrace{\bar{C} - c\bar{T} + \bar{I} + \bar{G}}_{\bar{A}}$$

$$\frac{\delta Y^*}{\delta \bar{A}} = \frac{1}{[1 - c(1-t)]}$$

→ **Automatic Stabilizer**

- Any mechanism in the economy that reduces the amt. by which o/p changes in response to a change in Autonomous demand.

Q→ Consider an increase in transfer payments and an Increase in the Govt. expenditure of the same amt. which will have greater Impact on Y^*

1) **Budget Surplus**: Excess of Governments revenues over its expenditures.

$$BS = TA - \bar{G} - \overline{TR}$$

TA ↓ ~~Not~~ Nett

$\overline{TR}$ ↳ transfers

$$BD = -BS$$

BD ↓ deficit

$$TA = tY$$

$$BS = tY - \bar{G} - \overline{TR}$$