

EXAMPLE :

$$T = 4 + 0.2Y$$

$$C = 15 + 0.75Y_d$$

$$R = 10.66$$

$$I = 25$$

$$G = 35$$

$$Y = C + I + G$$

$$Y_d = Y - T + R \quad *$$

Find $Y^* \rightarrow$ Equilibrium Income

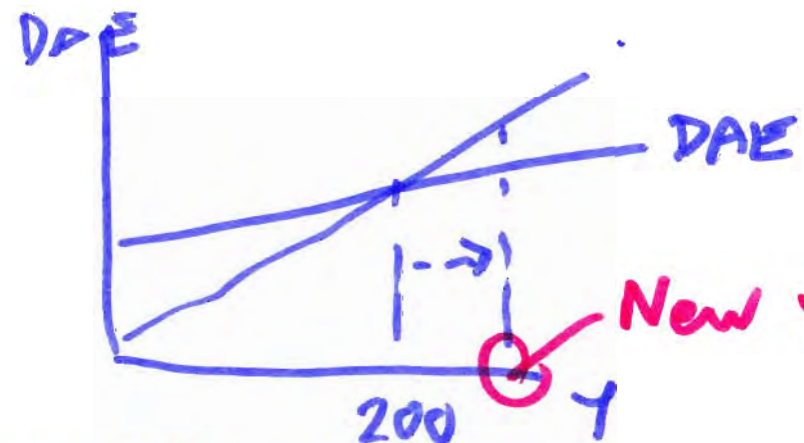
$$Y = C + I + G$$

$$= 15 + 0.75Y_d + 25 + 35$$

$$= 15 + 0.75(Y - T + R) + 25 + 35$$

$$= 15 + 0.75(Y - 4 - 0.2Y + 10.66) + 25 + 35$$

$$\Rightarrow Y^* = 200$$



Govt wants Y^* to be 225

① Adjust only t rate

$$\underbrace{G+R}_{\text{Expenditure}} = \underbrace{T}_{\text{Revenue}} \quad \left. \begin{array}{l} \text{In this case,} \\ G, R, T_a \text{ are fixed} \end{array} \right\}$$

$$\bar{G} + \bar{R} = \bar{T}_a + tY \Rightarrow Y \uparrow \rightarrow \text{So, } t \text{ has to } \downarrow$$

From $Y = C + I + G$ - ①

and $Y^d = Y - T + R$ - ②

$$225 = 15 + 0.75 Y^d + 25 + 35$$

$$225 = 75 + 0.75 (Y - 4 - \underline{\underline{t}}Y + 10.66)$$

$$t = 0.14$$

② Adjust only G

$$G + R = T$$

$$G + \bar{R} = \bar{T}_a + tY$$

In this case,
 R, T_a, t are fixed

↳ $Y \uparrow \rightarrow$ So, G has to $\uparrow$

$$\frac{\Delta Y}{\Delta G} = k_g$$

$$\Delta Y = \frac{\Delta G}{1 - b(1 - t)}$$

$$\Delta G = (1 - 0.75(1 - 0.2)) \Delta Y$$

$$= 0.4 \times 25$$

$$= 10$$

③ Adjust both G and t

$$G + R = T$$

$$\underline{G} + \bar{R} = \bar{T}_a + \underline{t} \cdot \bar{Y}$$

In this case: R and T_a are fixed.

Since $Y \uparrow$: so G and t have to vary.

Step 1: Compute $G_{yd} = Y - T + R = \{Y - G\}$

$$Y = C + I + G = 15 + 0.75(Y - G) + I + G$$

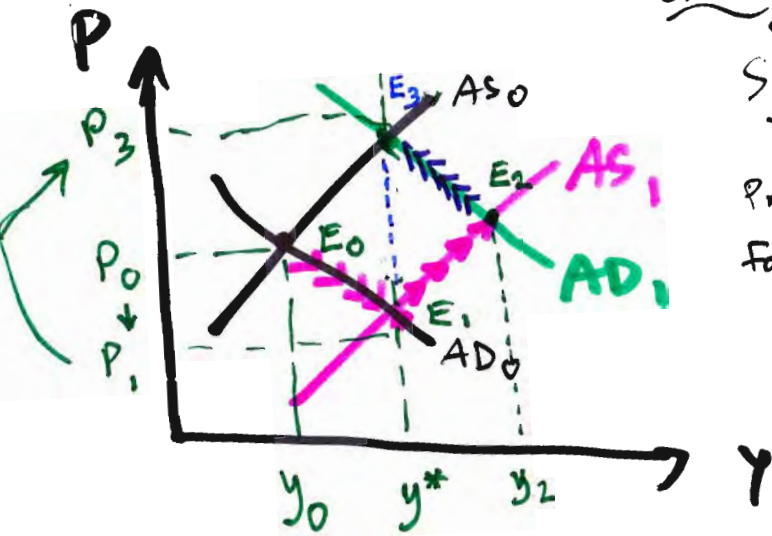
$$225 = 15 + 0.75(225 - \underline{G}) + 25 + \underline{G} \Rightarrow \underline{G} = 65$$

Step 2: Compute t

$$G + R = T_a + \underline{t} \cdot Y$$

$$65 + 10.66 = 4 + \underline{t} \cdot 225$$

$$\underline{t} = 0.318$$

CASE 1: Fiscal Expansion + Recession Gap

Step 1: From E_0 to E_1 : $y_0 < y^*$

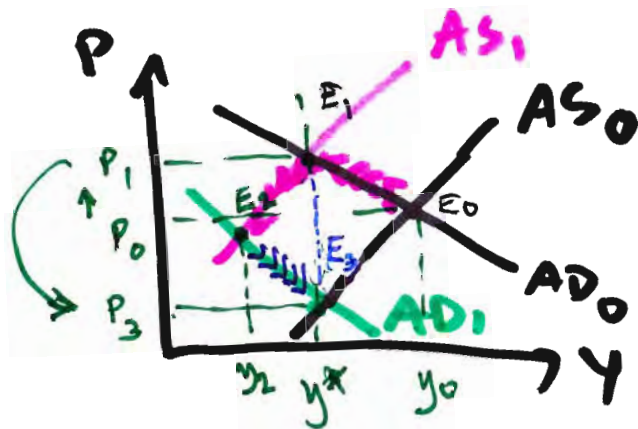
Pressure on Factor price $\downarrow \Rightarrow$ Unit cost $\downarrow \Rightarrow AS_0$ shifts to AS_1

So, the economy will adjust to point E_1

Step 2: **Govt conducts Fiscal Expansion.**

Govt's Fiscal expansion shifts AD_0 to AD_1 : @ E_2 : $y_2 > y^*$

Step 3 : Eventually, the economy will be at point E_3 .
AS shifts back to AS_0 : $y = y^*$ and $P = P_3$

CASE 2: Fiscal Contraction + Inflationary Gap

Step 1: From E_0 to E_1 : $y_0 > y^*$

Pressure on Factor Price $\uparrow \Rightarrow$ Unit cost $\uparrow \Rightarrow AS_0$ shifts to AS_1

Step 2: **Govt conducts Fiscal contraction.**

Govt's Fiscal contraction shifts AD_0 to AD_1

Finally, the economy will be at point E_3 | @ E_2 : $y_2 < y^*$

AS shifts back to AS_0 : $y = y^*$ and $P = P_3$

Discretionary vs. Non-Discretionary Policies.

Non-Discretionary : Pros: - Works automatically
- No lag time to be implemented
- No influence from politics

Cons: - Cannot resolve serious conditions/problems

Discretionary : Cons: - Lag time in recognition or decision or execution or response
- Irreversible when the problem solved

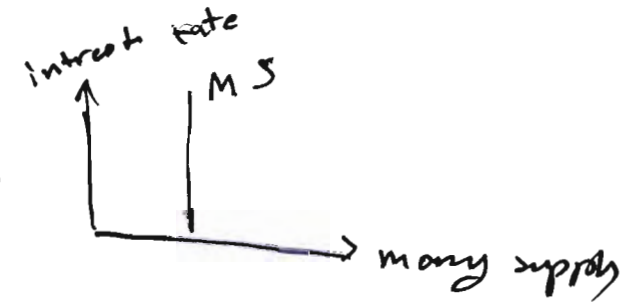
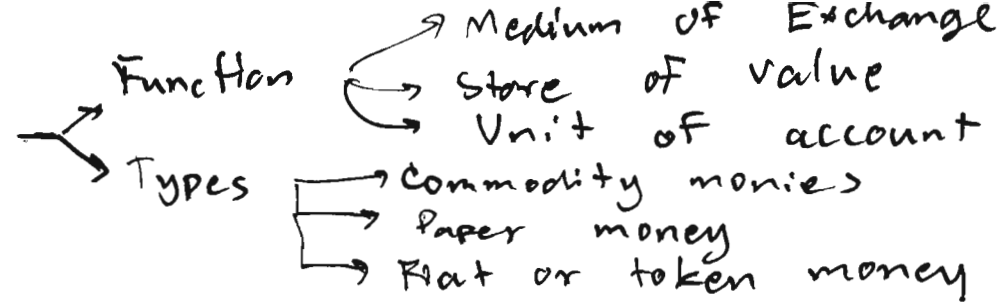
- Consumer's expectation

- Influence from politics

- Crowding-out effect
(with govt borrowing)

Pros: - Substantial level of influence
- Correct at the origin of problems

Definition



Money Supply

→ M1, M2, M3

⇒

Central Bank Roles

- Printing bank notes
- Act as the bank of govt
- Act as the bank of commercial banks
- Regulate Financial Institution
- Monitor Foreign Exchange + Capital Flows
- Inflation

Monetary Policy

- Open market operation (OMO)
- Setting the Bank Rate
- Setting the Discount Rate
- Setting the Legal Reserve Requirement (RR)

Financial Mkt

- Money Mkt
- Capital Mkt