

# KEYNESIAN / AE MODEL

## KEY EQUATIONS:

Agg. Exp:  $AE = [C_0 - c_1 T_0 + I_0 + G_0 + X_0 - M_0] + c_1 Y$  ①

In Eq<sup>m</sup>:

$$Y^* = \frac{[C_0 - c_1 T_0 + I_0 + G_0 + X_0 - M_0]}{1 - c_1}$$
 ②

| INCREASE IN            | IMPACT ON $Y^*$  |
|------------------------|------------------|
| ① $C_0, I_0, G_0, X_0$ | $Y^* \uparrow$   |
| ② $S_0, T_0, M_0$      | $Y^* \downarrow$ |

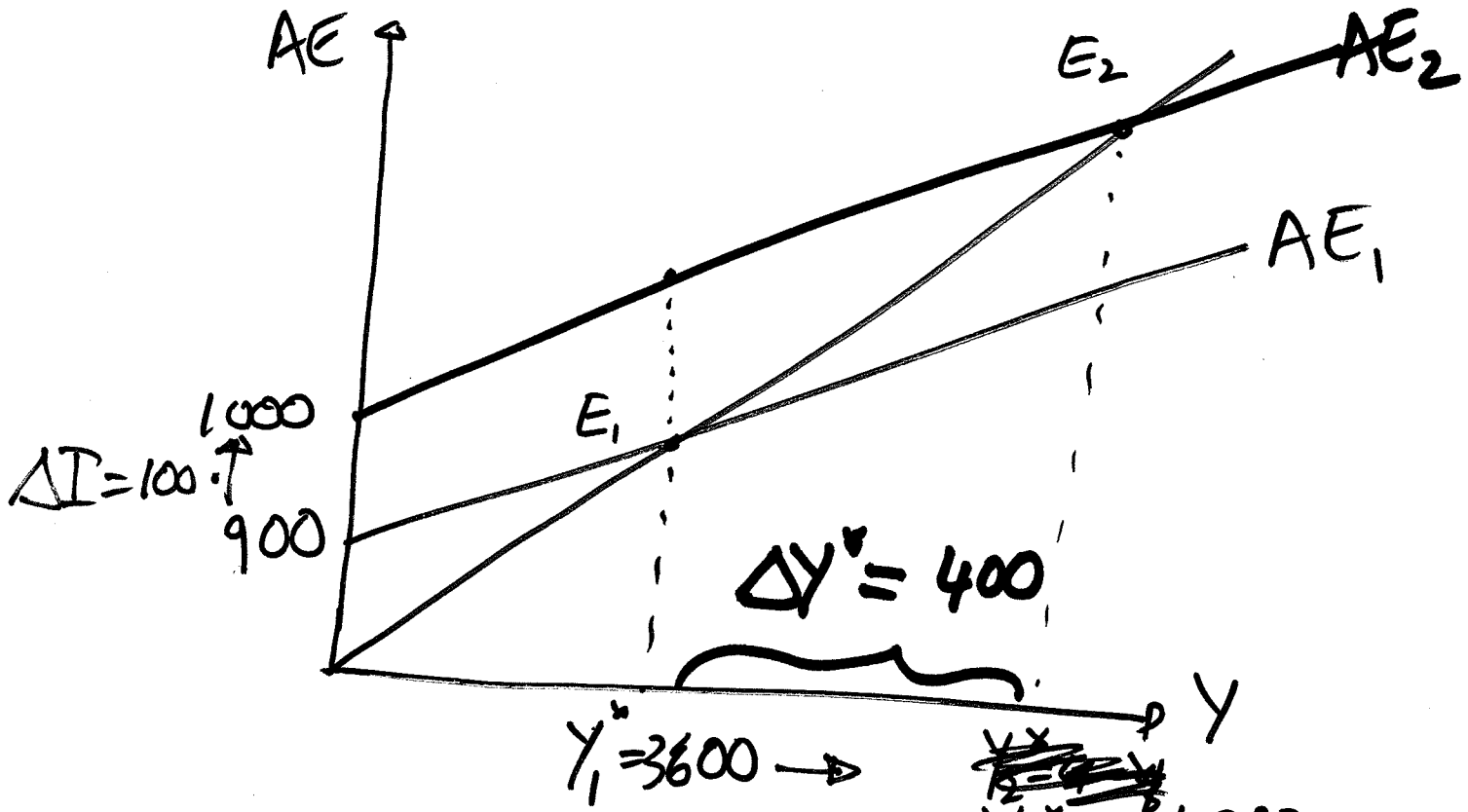
① — INJECTIONS

② — LEAKAGES

$$AE = C + I + G + NX$$

$$AE_1 = 900 + \frac{3}{4}Y$$

$$Y = AE \implies Y_1^* = 3600$$



$$I = 150 \longrightarrow I = 250 : \Delta I = 100$$

$$AE_2 = 1000 + \frac{3}{4}Y$$

$$Y_2^* = 4000$$

$$Y = C + I + G + NX$$

# MULTIPLIER :

$$\textcircled{1} \Delta Y^* = (\text{MULTIPLIER}) \Delta AE_0$$

$$\Rightarrow \text{MULTIPLIER} = \frac{\Delta Y^*}{\Delta AE_0} \quad \leftarrow$$

$$\textcircled{2} \text{MULTIPLIER} = \frac{1}{1 - (\text{slope of } AE)} \quad \leftarrow$$

If assumptions (3) & (4) <sup>both</sup> hold:

$$\begin{aligned} &= \frac{1}{1 - \text{MPC}} \\ &= \frac{1}{\text{MPS}} \end{aligned}$$

IN EQUILIBRIUM:

$$Y^* = C + I + G + NX$$

↑ 400

↑ 100

Y =  
↑ 100

AE =  
↑ 100

↑ 100

↑

↑

↑

$mpc \times \Delta Y = \cancel{\$100} \$75$

↑

↑

↑

$mpc = \$75$

↑

↑

↑

⋮  
⋮  
⋮  
⋮

$$Y^* = \underline{[C_0 - c_1 T_0 + \frac{I_0}{1-c_1} + G_0 + X_0 - M_0]}$$

$$Y^* = \frac{\overline{C_0}}{1-c_1} - \frac{c_1 \overline{T_0}}{1-c_1} + \frac{\overline{I_0}}{1-c_1} + \frac{\overline{G_0}}{1-c_1} + \frac{\overline{X_0}}{1-c_1} - \frac{\overline{M_0}}{1-c_1}$$

CETERIS PARIBUS:

$$\Delta Y^* = \left( \frac{1}{1-mpc} \right) \Delta I_0$$

$$\Delta Y^* = \left( \frac{1}{1-mpc} \right) \Delta G$$

$$\Delta Y^* = \left( \frac{-c_1}{1-c_1} \right) \Delta T_0$$