

MULTIPLIER :

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

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

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

If assumptions (3) + (4) ^{both} hold:

$$\begin{aligned} &= \frac{1}{1 - \text{mpc}} \\ &= \frac{1}{\text{mps}} \end{aligned}$$

$$Y^* = \underline{[C_0 - C_1 T_0 + \overline{I_0} + G_0 + X_0 - M_0]}$$

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

CETERIS PARIBUS:

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

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

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

$$AE_1 = C + I + G$$

$$AE_1 = 1000 + 0.8Y$$

$$\Rightarrow \text{In equilibrium: } Y_1 = AE_1$$

$$\Rightarrow Y_1^* = 5000$$

IF 100:

$$AE_2 = 1100 + 0.8Y$$

$$\Rightarrow \text{In equilibrium: } Y_2 = AE_2$$

$$\Rightarrow Y_2^* = 1100 + 0.8Y_2^*$$

$$\Rightarrow Y_2^* = \cancel{5500} \quad \Rightarrow \quad \underline{\Delta Y = 500}$$

$$AE = 1000 + 0.8Y$$

$$\Rightarrow \text{slope} = 0.8$$

$$\Rightarrow \text{Multiplier} = \frac{1}{1 - 0.8} = 5$$

$$\Delta Y^* = \text{Multiplier} \times \Delta I$$

$$500 = 5 \times 100$$

$$\boxed{Y_2^* = 5500}$$

