

张嘉麟 2022201745
经原2 第二次作业.

1. (1). $C = 100 + 0.8y_d$

$$y_d = y - t + tr$$

$$S = y_d - C$$

$$\text{由 } i + g = S + t$$

$$\text{得 } y = 687.5 \text{ (10亿美元).}$$

(2) 由上式得 $y = 5i + 437.5$ 故投资乘数 $k = \frac{dy}{di} = 5$

$$\text{同理 } k_g = \frac{1}{1-\beta} = 5$$

$$k_t = \frac{-\beta}{1-\beta} = -4$$

$$k_{tr} = \frac{\beta}{1-\beta} = 4$$

$$k_b = 1$$

2. (1). $\Delta g = \frac{\Delta y}{k_g} = 102.5 \text{ (10亿美元).}$

(2) $\Delta t = \frac{\Delta y}{k_t} = -128.125$

(3). $\Delta g = \frac{\Delta y_1}{k_g}$

$$\Delta t = \frac{\Delta y_2}{k_t}$$

$$\frac{1}{5} \Delta y_1 = 102.5$$

$$\Delta t = \Delta g$$

$$\Delta y_1 + \Delta y_2 = 1200 - 687.5$$

$$\text{得 } \Delta t = \Delta g = 512.5 \text{ (10亿美元)}$$

3. $k_i = \frac{1}{1-\beta} = 4$

$$\text{故 } \Delta y = k_i \cdot \Delta i = 800$$

$$4.(1). Y_d = y - t$$

$$C = 1000 + 0.75Y_d$$

$$S = Y_d - C$$

$$\text{由均衡时 } i+g = s+t \text{ 得 } \begin{aligned} y &= 8400 \\ Y_d &= 7800 \end{aligned}$$

$$(2) C = 1000 + 0.75Y_d = 6850$$

$$(3) S = Y_d - C = 950$$

$$S_g = t - g = -150$$

$$(4) k = \frac{1}{1-\beta} = \frac{1}{0.25} = 4$$

$$5. C = 600, \quad 1-\beta = 0.2, \quad \Delta y_0 = \frac{1}{1-\beta} \cdot C$$

$$\text{则 } k_g = \frac{1}{1-\beta} = 5, \quad k_{tr} = \frac{\beta}{1-\beta} = 4, \quad k_t = \frac{-\beta}{1-\beta}$$

$$\text{故 } \Delta y_1 = k_g \cdot \Delta g, \quad \Delta y_2 = k_{tr} \cdot \Delta tr, \quad \Delta y_3 = k_t \cdot \Delta t$$

$$\Delta y = \Delta y_0 + \Delta y_1 + \Delta y_2 + \Delta y_3 = 1500$$

附加题.

$$1.(1) \text{ 由 } C + i + g + x - m = C + s + t_n$$

$$Y_d = y - t_n$$

$$S = Y_d - C$$

$$\text{解得 } y = 600$$

$$(2) NX = 50 - 0.05y = 20$$

$$(3) k = \frac{1}{1-\beta} = 5$$

$$(4) y_1 = y + k \cdot \Delta i = 650$$

$$NX_1 = 50 - 0.05y_1 = 17.5$$

$$(5) k_{nx} = \frac{1}{1-\beta} = 5, \quad y_2 = y + k_{nx} \cdot \Delta NX = 550$$

$$NX_2 = 40 - 0.05y_2 = 12.5$$