

$$1. (1) y_d = y - t + tr$$

$$= y - 187.5$$

$$C = 100 + 0.8 y_d$$

$$= 100 + 0.8(y - 187.5)$$

$$= -50 + 0.8y$$

$$y = C + i + g$$

$$= -50 + 0.8y + 50 + 200$$

$$\text{解得 } y = 1000$$

∴ 均衡收入为1000亿美元。

$$(2) \text{ 由 } y = C + i + g = 200 + 0.8y$$

$$C = a + \beta y_d = \frac{100 + 0.8y_d}{-50 + 0.8y_d}$$

$$y_d = y - t + tr = y - 187.5$$

$$\text{得 } y = \frac{a + i + g + \beta tr - \beta t}{1 - \beta} \quad \text{且 } \beta = 0.8$$

$$\text{投资乘数 } k_i = \frac{\Delta y}{\Delta i} = \frac{1}{1 - \beta} = 5$$

$$\text{政府支出乘数 } k_g = \frac{\Delta y}{\Delta g} = \frac{1}{1 - \beta} = 5$$

$$\text{税收乘数: } k_t = \frac{\Delta y}{\Delta t} = \frac{-\beta}{1 - \beta} = -4$$

$$\text{转移支付乘数: } k_{tr} = \frac{\Delta y}{\Delta tr} = \frac{\beta}{1 - \beta} = 4$$

$$\text{平衡预算乘数: } k_b = \frac{\Delta y}{\Delta g} + \frac{\Delta y}{\Delta t} = 1$$

$$2. (1) \text{ 均衡收入为 } 1000$$

潜在国民收入为1200

GDP缺口为200

$$k_g = 5$$

$$\therefore \Delta g = \frac{\Delta y}{k_g} = \frac{200}{5} = 40$$

应增加政府购买400亿美元

(2)

$$k_t = -4$$

$$\Delta t = \frac{\Delta y}{k_t} = \frac{200}{-4} = -50$$

∴ 应减少税收500亿美元

(3)

$$k_b = 1$$

$$\Delta g = \Delta t$$

$$\text{则 } \Delta g = \Delta t = \frac{\Delta y}{k_b} = 200$$

∴ 需2000亿美元

3.

$$y_d = C + S = C + i$$

$$\therefore C = 0.75 y_d + 1600$$

$$S = i$$

$$i = 400 \text{ 时, } y_d = 8000$$

$$i = 600 \text{ 时, } y_d = 8800$$

$$\Delta y = \Delta y_d = 800$$

∴ 均衡国民收入增加800。



4. (1)  $y = C + i + g$

$$C = 1000 + 0.75y_d$$

$$y_d = y - t$$

$$= y - 600$$

$$\therefore C = 1000 + 0.75y - 450$$

$$= 550 + 0.75y$$

$$y = 550 + 0.75y + 800 + 750$$

$$0.25y = 2100$$

$$y = 8400$$

$$y_d = y - t = 7800$$

$\therefore$  均衡国民收入为 8400

可支配收入为 7800

(2)  $C = 1000 + 0.75 \times 7800$

$$= 1000 + 5850$$

$$= 6850$$

$\therefore$  消费支出为 6850

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

$$\text{政府储蓄 } S' = t - g = -150$$

$\therefore$  私人储蓄为 950

政府储蓄为 -150

(4)  $k_i = \frac{\Delta y}{\Delta i}$

$$y = \frac{a + i + g - \beta t}{1 - \beta} \quad \beta = 0.75$$

$$\therefore k_r = \frac{1}{1 - \beta} = 4 \quad \text{投资乘数为 4}$$

5. 边际储蓄倾向

即  $\frac{\Delta y}{\Delta S} = 0.2$

$$C = a + \beta y_d$$

$$S = -a + (1 - \beta)y_d$$

$$= -a + (1 - \beta)(y - t)$$

$$= -a + (1 - \beta)y - (1 - \beta)t$$

$$\frac{\Delta S}{\Delta y} = 1 - \beta = 0.2$$

$$\therefore \beta = 0.8$$

$$\frac{\Delta C}{\Delta y} = \beta \quad \Delta y_1 = \frac{\Delta C}{\beta} = \frac{600}{0.8} = 750$$

$$y = \frac{a + i + g - \beta t}{1 - \beta}$$

$$\frac{\Delta y}{\Delta g} = \frac{1}{1 - \beta} \quad \Delta y_2 = -300 \times 5 = -1500$$

$$\frac{\Delta y}{\Delta t_1} = \frac{0.8}{0.2} = 4 \quad \Delta y_3 = -300 \times 4 = -1200$$

$$\frac{\Delta y}{\Delta t} = -4 \quad \Delta y_4 = -4 \times (-300) = 1200$$

$$\Delta y = \Delta y_1 + \Delta y_2 + \Delta y_3 + \Delta y_4 = -750$$

$\therefore$  新的均衡国民收入减少 750



# 附加题:

$$\begin{aligned} (1) \quad y &= c + i + g + nx \\ &= 30 + 0.8y_d + 60 + 50 + 50 - 0.05y \\ &= 190 + 0.8y_d - 0.05y \end{aligned}$$

$$y_d = y - t_n = y - 50$$

$$\begin{aligned} \therefore y &= 190 + 0.8(y - 50) - 0.05y \\ &= 190 - 40 + 0.8y - 0.05y \\ 0.75y &= 150 \\ y &= 600 \end{aligned}$$

$\therefore$  均衡收入为 600

$$\begin{aligned} (2) \quad nx &= 50 - 0.05y \\ &= 50 - 0.05 \times 600 = 20 \\ \therefore \text{净出口余额为 } 20 \end{aligned}$$

$$\begin{aligned} (3) \quad y &= c + i + g + nx \\ &= 30 + 0.8(y - t_n) + i + g + 50 - 0.05y \\ 0.75y &= 30 - 0.8t_n + i + g + 50 \\ k_i &= \frac{\Delta y}{\Delta i} = 4 \\ \therefore \text{投资乘数为 } 4 \end{aligned}$$

(4). 由(1)得

$$\begin{aligned} y &= c + i + g + nx \\ &= 30 + 0.8y_d + 70 + 50 + 50 - 0.05y \end{aligned}$$

$$\text{即 } 0.75y = 160$$

$$y = 640$$

$$nx = 50 - 0.05y = 18$$

$\therefore$  均衡收入为 640,  
净出口余额为 18

$$\begin{aligned} (5) \quad y &= c + i + g + nx \\ &= 30 + 0.8y_d + 60 + 50 + 40 - 0.05y \end{aligned}$$

$$\therefore 0.75y = 140$$

$$y = 560$$

$$nx = 40 - 0.05y = 12$$

$\therefore$  均衡收入为 560.  
净出口余额为 12.