

③
0.1 消費水準: $Q_1 < Q_3 < Q_2$
價格補貼使老人數量增加最多，業者因此補貼而消費者改變多

0.2 效用水準: $I_3 > I_2 > I_1$
消費者喜好定額補貼，其效用水準↑

(3)

納稅支出: $Y_2 - Y_0$

若政府未補貼，其他商品消費量 = Y_0 ，因此價格補貼 = $Y_2 - Y_0$ #

2.

假設電子與紙本書為完全替代品

消費者則買相對便宜的。美國稅輕，電子書便宜，德國稅重，紙本書便宜

(1) 因稅制差異，致價不同消費不同

(2) 電子紙本為不完全替代商品，有人偏好電子、紙本 #

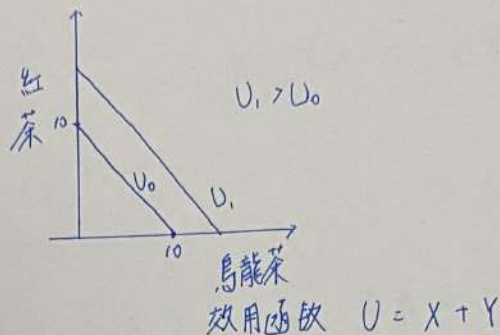
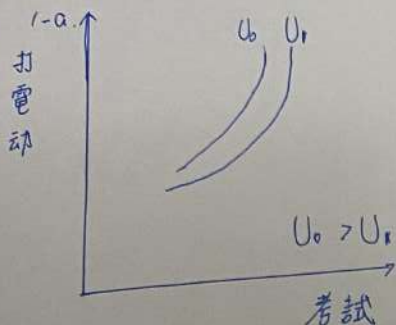
(3) 價差較有說服力，兩者均有解釋力

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林品駒

1. D 2. B 3. C 4. A 5. B 6. D 7. C 8. C 9. A 10. B 11. C
12. D 13. B 14. C 15. A 16. B

二.



2.

$$\begin{aligned} 300 &= 20x + 10y \\ U &= f(x, y) = x^{\frac{2}{3}} y^{\frac{1}{3}} \\ MRS_{xy} &= \frac{\frac{2}{3} x^{-\frac{1}{3}} y^{\frac{1}{3}}}{\frac{1}{3} x^{\frac{2}{3}} y^{-\frac{2}{3}}} = 2 \end{aligned}$$

$$x = y \Rightarrow x = 10, y = 10$$

(2)

$$U = f(x, y) = 3x + y$$

$$MRS_{xy} = 3 > 2$$

$$\Rightarrow y = 0, x = 15$$

(3)

$$\begin{cases} x = 2y \\ 300 = 20x + 10y \end{cases} \Rightarrow \begin{cases} y = 6 \\ x = 12 \end{cases}$$

3.

$$\begin{cases} U = x^{\frac{2}{3}} y^{\frac{1}{3}} \\ 300 = 20x + 10y \end{cases} \Rightarrow \begin{cases} x = y \\ (10, 10) \end{cases}$$

$$U = x^{\frac{2}{3}} y^{\frac{1}{3}} \Rightarrow x = 20, y = 10$$

(1)

$$U = x^{\frac{2}{3}} y^{\frac{1}{3}} = \left(\frac{1}{2} x^3\right)^{\frac{1}{3}} = 2000^{\frac{1}{3}}$$

$$x = 4000^{\frac{1}{3}}$$

$$y = 500^{\frac{1}{3}}$$

(2)

$$(x, y) = (20, 10) \rightarrow (4000^{\frac{1}{3}})$$

(3)

$$(x, y) = (10, 10) \rightarrow (4000^{\frac{1}{3}})$$

4. (1)

$$MRS_{xy} = \frac{2y}{x} = 2 \Rightarrow y = x$$

(2)

$$20x + 10y = M$$

$$30x = M \Rightarrow x = \frac{M}{30} \neq$$

(3)

(4)

$$\frac{2y}{x} = \frac{p_x}{p_y} \Rightarrow y = \frac{p_x \cdot x}{20}$$

$$300 = p_x x + 10 \frac{p_x x}{20} \Rightarrow x = \frac{200}{p_x} \neq$$