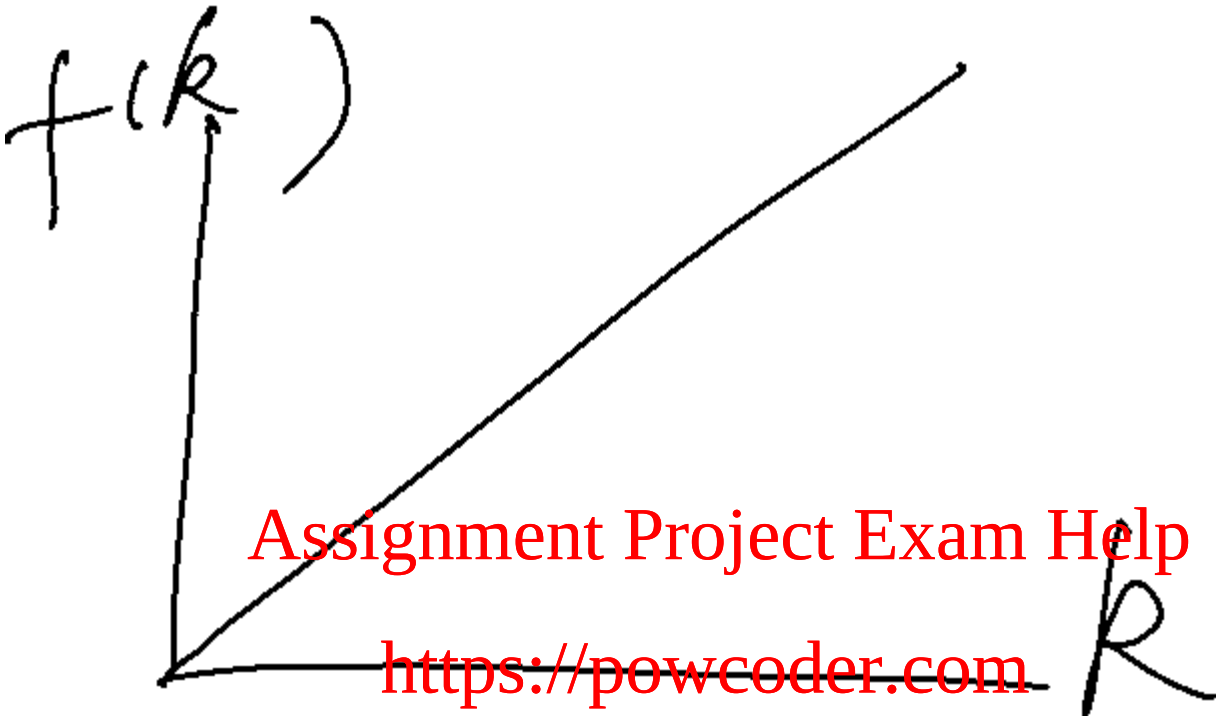
$$f(k) = x \cdot k$$



$$f'(k) = x$$

$$f(k) = k^{\alpha}, \quad 0 < \alpha < 1$$

$$f'(k) = \alpha k^{\alpha-1} > 0$$

$$f''(k) = \alpha \cdot (\alpha - 1) \cdot k^{\alpha-2} < 0$$

Young Old

borrowers ($\frac{N}{2}$) 0 y

lenders ($\frac{N}{2}$) $y < c_1$ $y - c_1$ 0

leader:

r ↑ ← IE (+ve): C_1 ↑, C_2 ↓

SE: C_1 ↓, C_2 ↑

relative price of C_2 is $\frac{r}{r}$

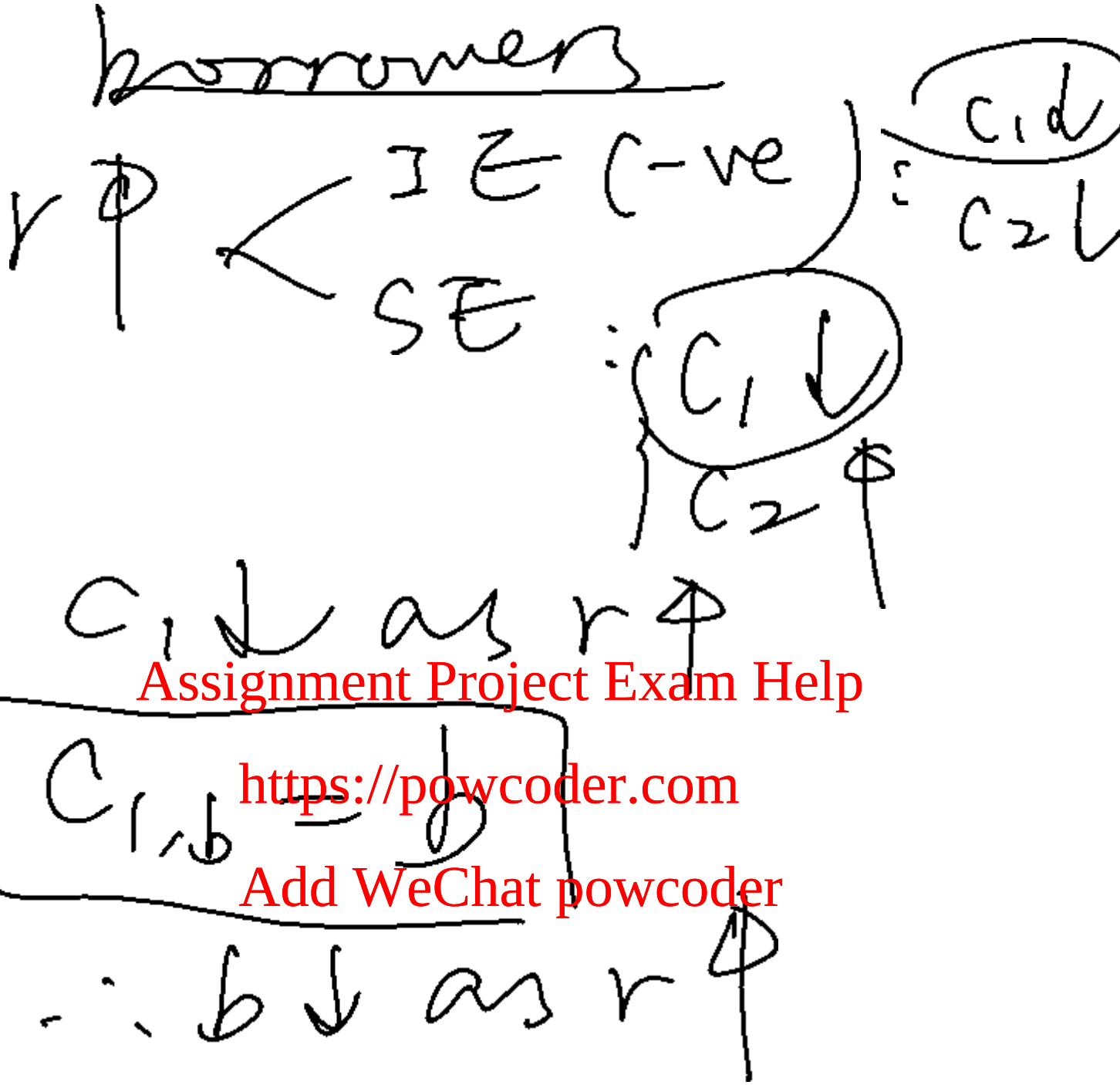
r ↑ → C_2 cheaper

C_1 ↑ → C_2 expensive

$|SE| > |IE|$ →

C_1 ↓ as r ↑

L ↑ . — —



$$C_{1,L}^{*} = \frac{y}{\beta^2 + 1}$$

$$C_{2,L}^{*} = \frac{y r^2}{r + (\frac{2}{\beta})^2}$$

$r \uparrow, C_{1,L} \downarrow$

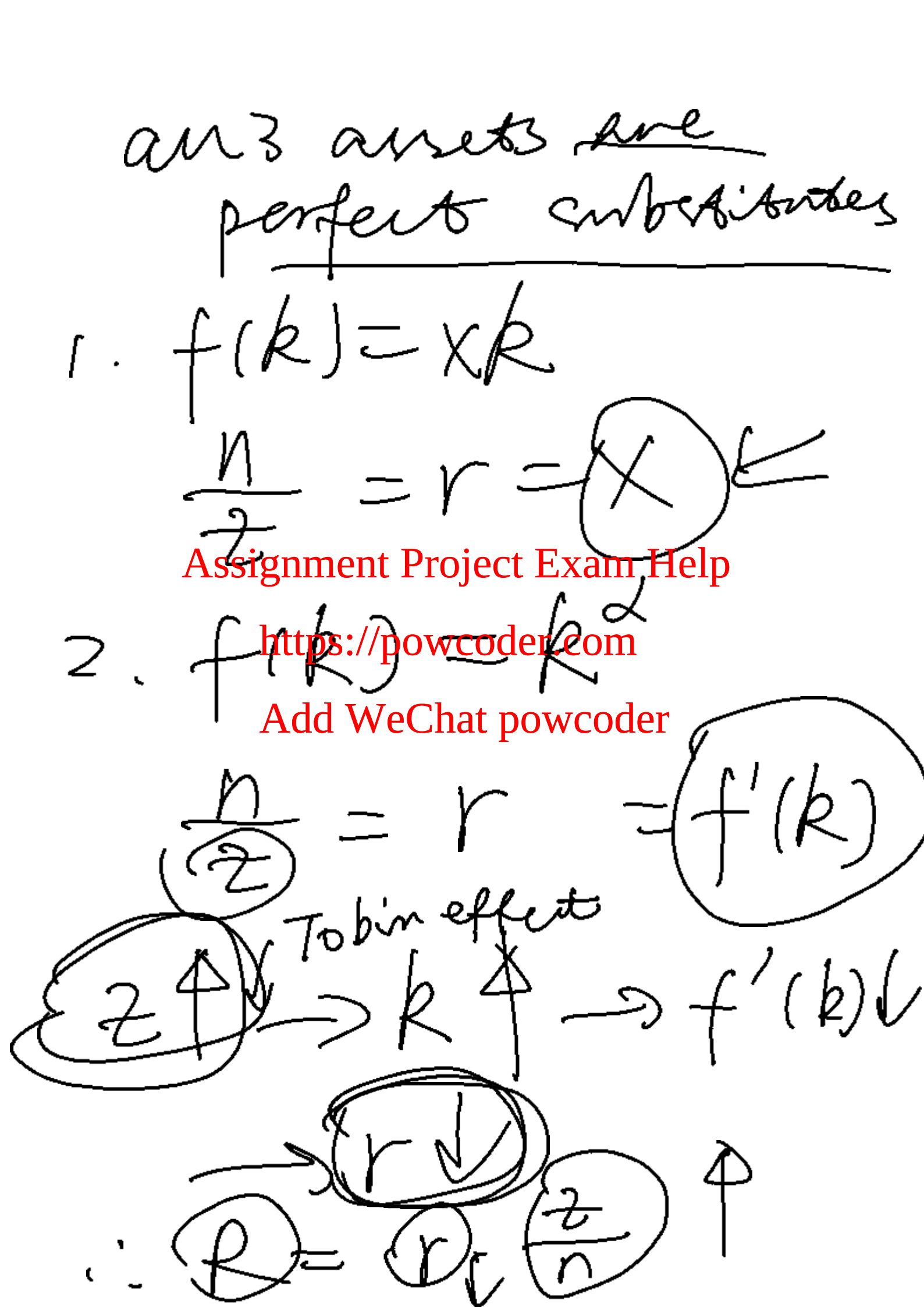
Borrower

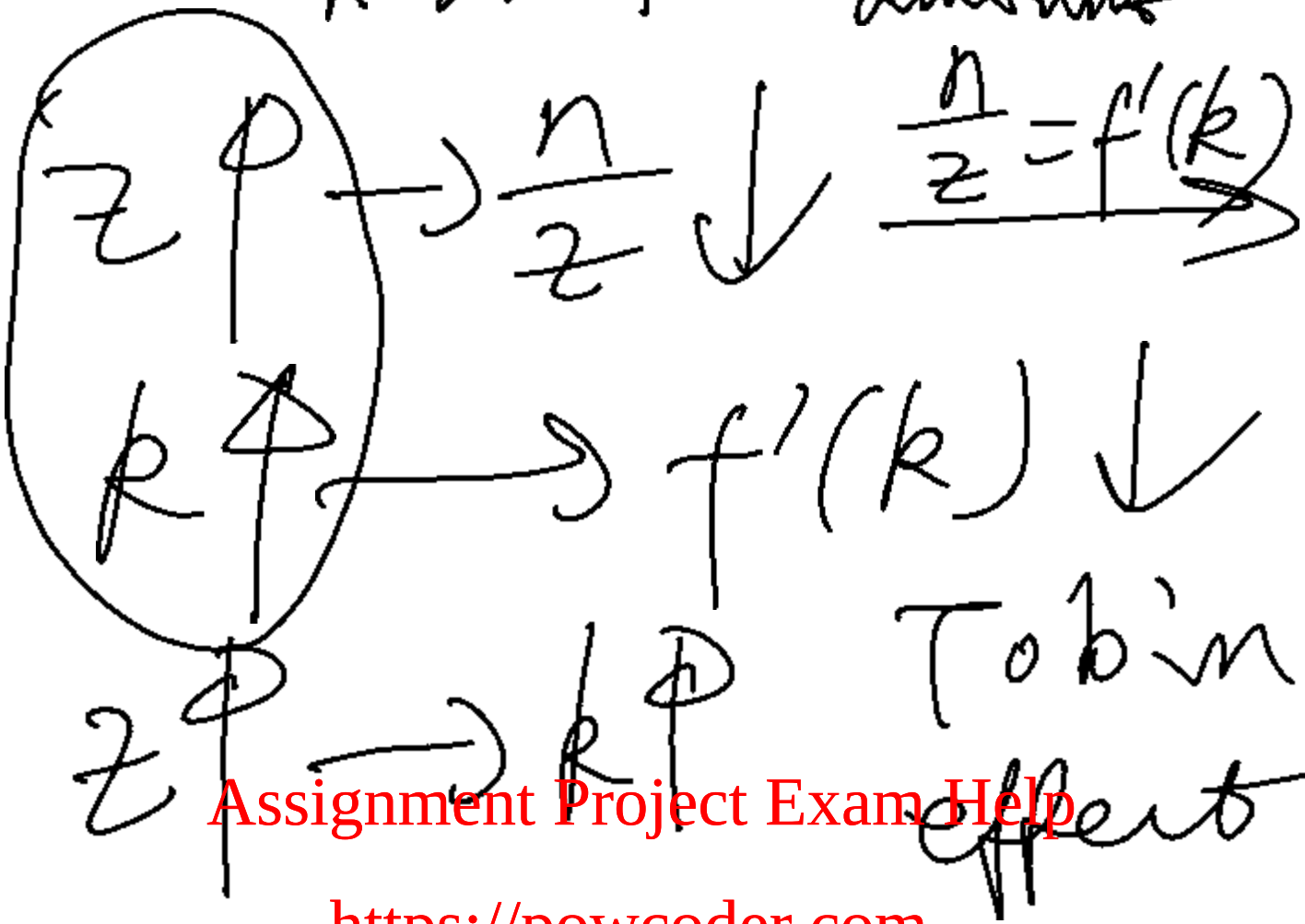
$$\max_{C_1, C_2} \; (C_1)^{\frac{1}{2}} + \beta (C_2)^{\frac{1}{2}}$$

$$s.t. \; C_1 + \frac{C_2}{r} \leq \frac{y}{r}$$

$$C_{1,B}^{*} = \frac{y}{r^2 \beta^2 + r}$$

$$C_{2,B}^{*} = \frac{y}{1 + \frac{1}{r \beta^2}}$$


and assets are
perfect substitutes
1. f(k) = xk
n/2 = r = x
Assignment Project Exam Help
2. f(k) = k^2
https://powcoder.com
Add WeChat powcoder
n/2 = r = f'(k)
Tobin effect
z ↑↓ → k ↑ → f'(k) ↓
r ↓
∴ R = r
z/n ↑



2008 in U.S.

K = $34,261 bio

money stock = $1,664 bio

$$\frac{1664}{34261} = 4.8\%$$

output ≠ welfare

$f'(k^g) = \frac{n}{z}$ max

Golden rule K

Social planner's

RC

$N_t C_{1,t} + N_{t-1} \cdot C_{2,t} \leq N_t \cdot k_t$

$= N_t y + N_{t-1} f(k_{t-1})$

$\rightarrow C_1 + \frac{C_2}{n} \leq k$

$= y + \frac{f(k)}{n}$

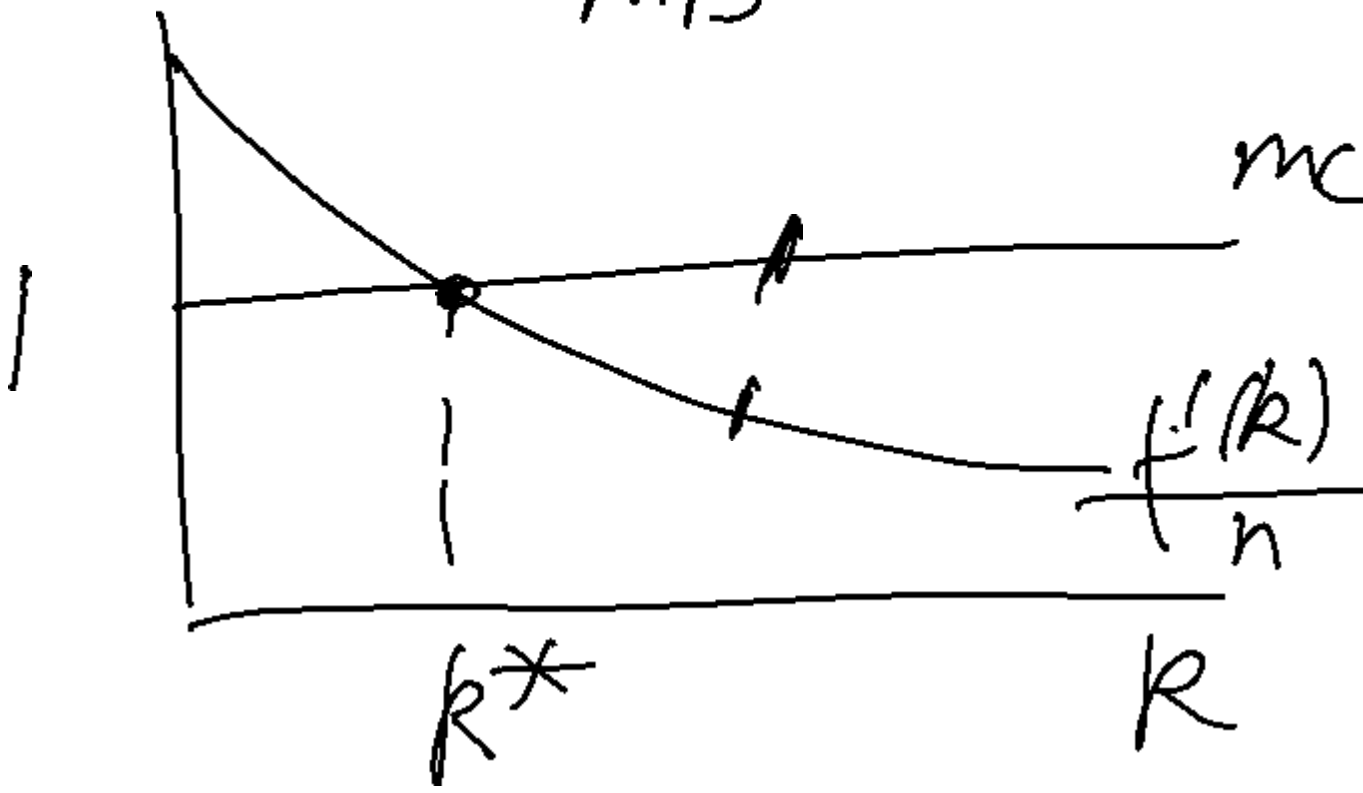
$$\rightarrow c_1 + \frac{c_2}{n}$$

$$= y + \left[\frac{f(k)}{n} - k\right]$$

optimal

$$\frac{f'(k)}{n} = 1$$

MB = MC



golden rule : $f'(k^*) = n$

k^*

---

monetary eq^m : $f'(k_e) = \frac{n}{z}$

k_e

$z = 1 \longrightarrow k_e = k^*$

$z > 1$

$k_e > k^*$

$\downarrow$ $MC > MB$

3 assets are not perfect sub

$$f(k) = X - k$$

$$X = r = R - \frac{n}{2}$$

capital debt (r)

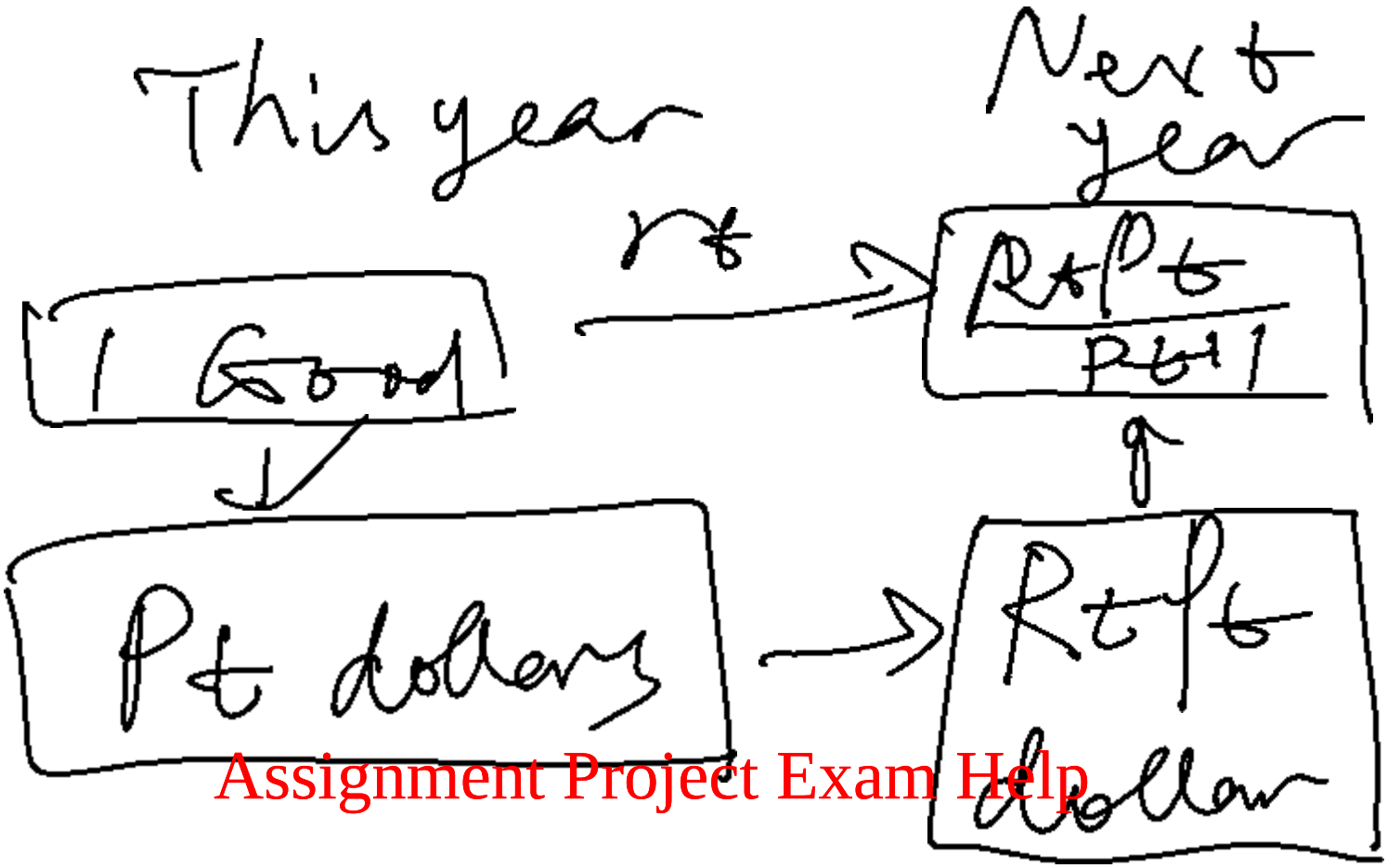
$$\therefore R = X \cdot \frac{2}{n}$$

$\bar{r}$ ($= X$)

2↑ ← R↑ by fun

amount

(Fisher effect)



$$X = r_t = R_t \cdot \frac{P_t}{P_{t+1}}$$

$$\therefore \frac{P_t}{P_{t+1}} = \frac{V_{t+1}}{V_t} = \frac{n}{z}$$

$$\therefore X = r_t = R_t \cdot \frac{n}{z}$$

$$R_t = X \cdot \frac{z}{n} \quad (r_t)$$