n individus

$u_i = c_i \cdot c_i'$

G1 $l_1 = (1,0)$ → dotacions de treball

G2 $l_2 = (2,2)$

$Y = 2K^{1/2} L^{1/2}$

funció producció

G1

Max $u_1 = c_1 \cdot c_1'$

s.a $c_1 + k_1' = 1 \cdot w$

$c_1' = \sigma' k_1' + 0 \cdot w'$

$c_1 + \frac{c_1'}{\sigma'} = w$

$c_1 = \frac{w}{2}$ $\quad c_1' = \sigma' c_1 = \frac{\sigma' w}{2}$

$S_1 = w - c_1 = \frac{w}{2}$

G2

Max $u_2 = c_2 \cdot c_2'$

s.a $c_2 + k_2' = 2 \cdot w$

$c_2' = \sigma' k_2' + 2w'$

$c_2 + \frac{c_2'}{\sigma'} = 2w + \frac{2w'}{\sigma'}$

$c_2 = w + \frac{w'}{\sigma'}$ $\quad c_2' = \sigma' c_2 = \sigma' w + w'$

$S_2 = 2w - c_2 = w - \frac{w'}{\sigma'}$

$S_1 = w - c_1 = k_1'$

$S_2 = 2w - c_2$

k_2'

$\sum S_i = \sum k_i'$

reste marcat de preus

mercats competitius < treball, capital

- $w = PMg_L = \frac{dY}{dL} = 2 \cdot \frac{1}{2} K^{1/2} L^{-1/2} = \left(\frac{K}{L}\right)^{1/2}$
- $\sigma' = PMg_{K'} = \frac{dY'}{dK'} = 2 \cdot \frac{1}{2} K'^{-1/2} L'^{1/2} = \left(\frac{L'}{K'}\right)^{1/2}$

$L' = L = n1 + n \cdot 2 + n \cdot 2 = 5n$

(1 joves G1, 2 joves G2, 2 grans G2)

$K' = n \cdot (k_1' + k_2') = n \cdot k'$

$S = \sum S_i = n \cdot (S_1 + S_2) = n\left(\frac{w}{2} + w - \frac{w'}{\sigma'}\right) = n\left(\frac{3}{2}w - \frac{w'}{\sigma'}\right)$

$S = K'$

$K' = \sum k_i'$

$= n(k_1' + k_2')$

$\rightarrow n \cdot \left(\frac{3}{2}w - \frac{w'}{\sigma'}\right) = n(k_1' + k_2')$

k'

$w = \left(\frac{n \cdot k}{5n}\right)^{1/2} = \left(\frac{k}{5}\right)^{1/2}$

$w' = \left(\frac{k'}{5}\right)^{1/2}$

$\sigma' = \left(\frac{5K}{nk'}\right)^{1/2} = \left(\frac{5}{k'}\right)^{1/2}$

$\frac{w'}{\sigma'} = \frac{\left(\frac{k'}{5}\right)^{1/2}}{\left(\frac{5}{k'}\right)^{1/2}} = \frac{k'}{5}$

$k' = \frac{3}{2}w - \frac{w'}{\sigma'}$

$k' = \frac{3}{2}\left(\frac{k}{5}\right)^{1/2} - \frac{k'}{5}$

$\frac{6}{5}k' = \frac{3}{2}\left(\frac{k}{5}\right)^{1/2}$

$k' = \frac{15}{12}\left(\frac{k}{5}\right)^{1/2} = \frac{5}{4}\left(\frac{k}{5}\right)^{1/2} = \frac{5^{1/2}}{4} k^{1/2}$

$\bar{k} = 5/16$

$\bar{w} = \left(\frac{5/16}{5}\right)^{1/2} = \left(\frac{1}{16}\right)^{1/2} = \frac{1}{4}$

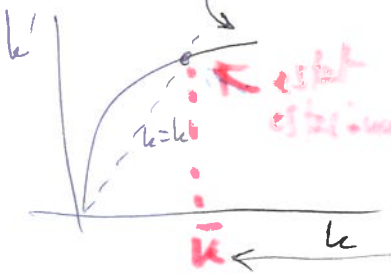
$\bar{\sigma} = \frac{1}{\bar{w}} = 4$

$\bar{c}_1 = \frac{1}{8} = \frac{2}{16}$

$\bar{c}_2 = \frac{1}{4} + \frac{1}{16} = \frac{5}{16}$

$\bar{c}_1' = \bar{\sigma} \cdot \bar{c}_1 = 4 \cdot c_1 = \frac{8}{16} = \frac{1}{2}$

$\bar{c}_2' = \bar{\sigma} \cdot \bar{c}_2 = 4 \cdot c_2 = \frac{20}{16} = \frac{5}{4}$



$k' = k = \bar{k}$

$4k = 5^{1/2} k^{1/2}$

$16k^2 = 5k$

$k = 5/16$