- INTRODOCING HOUSEHOL ECONOMY

Becker: "Not necesary change in preferences but Δ in the opportunity cost of time"

MODEL

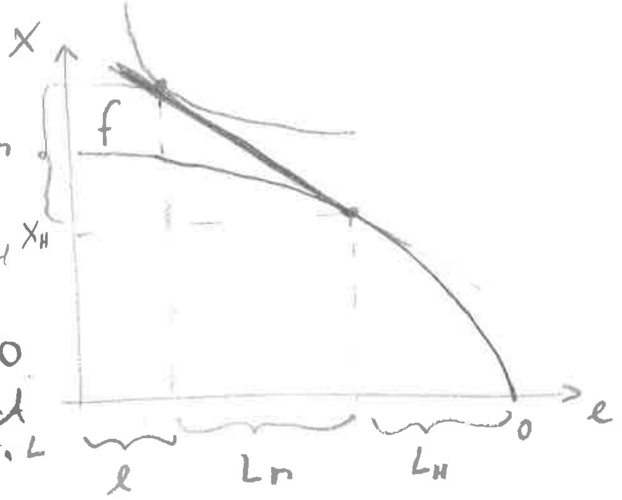
$u = u(x, \ell)$

$x = X_H + X_n + X_0 \; ; \; p = 1$

$T = \ell + L_H + L_n$ $\qquad \frac{\partial f}{\partial X_n} = 0$ assume

$X_H = f(L_H) \; ; \; f' > 0, \; f'' < 0$

$X_M = \; + w L_n \; ; \; X_M \,\&\, X_H$ perfect subst. L



what affects participation on the Ln?

$f' \gtreqless w \longrightarrow$

f < w !L (1) $\qquad$ f > w !L (2) $\qquad$ f = w (3)

FONC in CASE (3)

$$\boxed{\frac{\partial u / \partial \ell_n}{\partial u / \partial X} = w = \frac{\partial f}{\partial L_H} = \frac{\partial u / \partial L_n}{\partial u / \partial x} = \frac{\partial u / \partial L_H}{\partial u / \partial x}}$$

~~READINGS~~

$$\mathcal{L}(x, \ell, \mu, \lambda) = u(x, \ell) + \lambda [X_0 + w L_n + f(L_H) - X] + \mu [T - \ell - L_n - L_H]$$

$$\left.\begin{aligned} u_x - \lambda &= 0 \\ u_\ell - \mu &= 0 \end{aligned}\right\} \quad \boxed{\frac{u_\ell}{u_x} = \frac{\mu}{\lambda} = f' = w}$$

$$\left.\begin{aligned} \lambda w - \mu &= 0 \\ \lambda f' - \mu &= 0 \end{aligned}\right\} \quad \frac{w}{f'} = 1 \rightarrow w = f'$$

$$f' = \frac{\mu}{\lambda}$$

You have 1 unit of time Δt to be used in three ways: l, L_H, L_m

leisure: $\Delta t \to \Delta l \to \Delta U^l = \frac{\partial U}{\partial l} \Delta t$ (i)

x home: $\Delta t \to \Delta L_H \to \Delta U^H = \frac{\partial U}{\partial x}\frac{\partial x}{\partial L_H} \Delta t$

$= \frac{\partial U}{\partial x} f' \Delta t$ (ii)

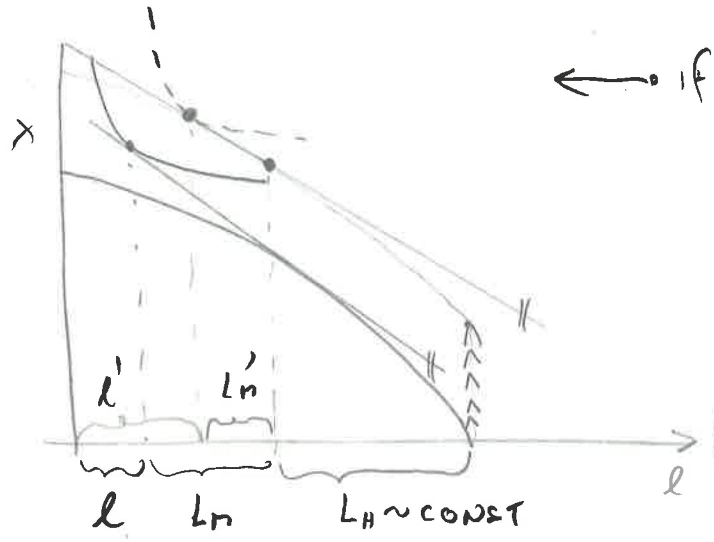
x mkt: $\Delta t \to \Delta L_m \to \Delta U^m = \frac{\partial U}{\partial x} w \Delta t$ (iii)

(i) & (ii): $\dfrac{\frac{\partial U}{\partial l}}{\frac{\partial U}{\partial x}} = f'$

(i) & (iii): $\dfrac{\frac{\partial U}{\partial l}}{\frac{\partial U}{\partial x}} = MRS_{l,x} = w$

(ii) & (iii): $f' = w$ / p

CASE Increase in non-labor income x_0

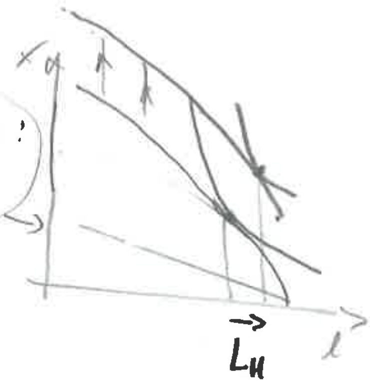


⟵ if NORMAL GOOD, L_H will stay const.

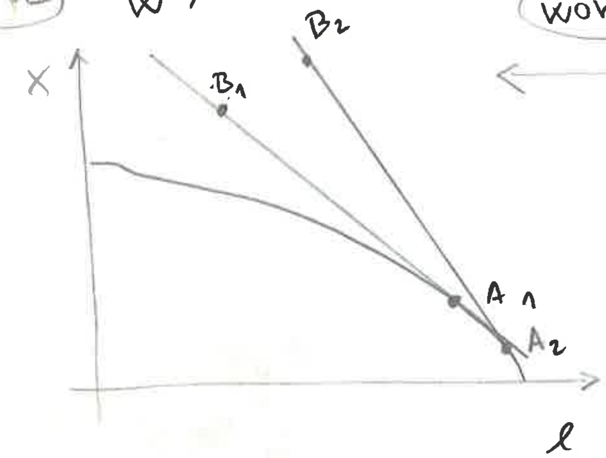
$\nearrow \ell'$

$\searrow L_m$

if not on the LM: $L_H \searrow$, $\ell \nearrow$

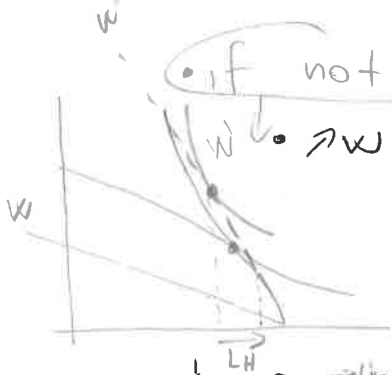


CASE $w \nearrow$



working person

• $L_H \searrow$, L_m ?, ℓ ?



• if not on the LM

• $\nearrow w$ ⟹ • no effect

or

• participation

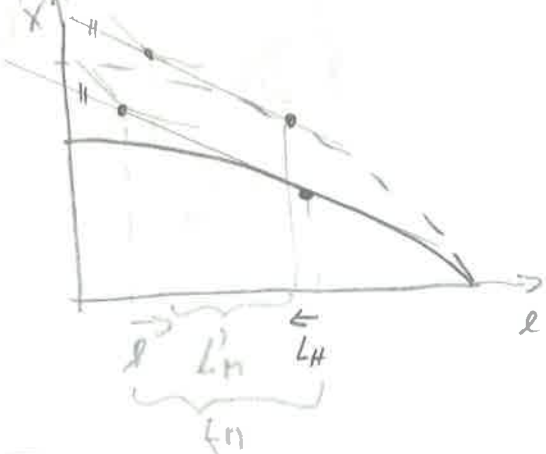
$L_H \searrow$, ℓ?, L_m?

CASE Growth of home productivity (wash machines, vacuum cleaner)

$L_H \nearrow$, $L_m \downarrow$ $\ell \uparrow$

but empirically, we observe $L_H \searrow$

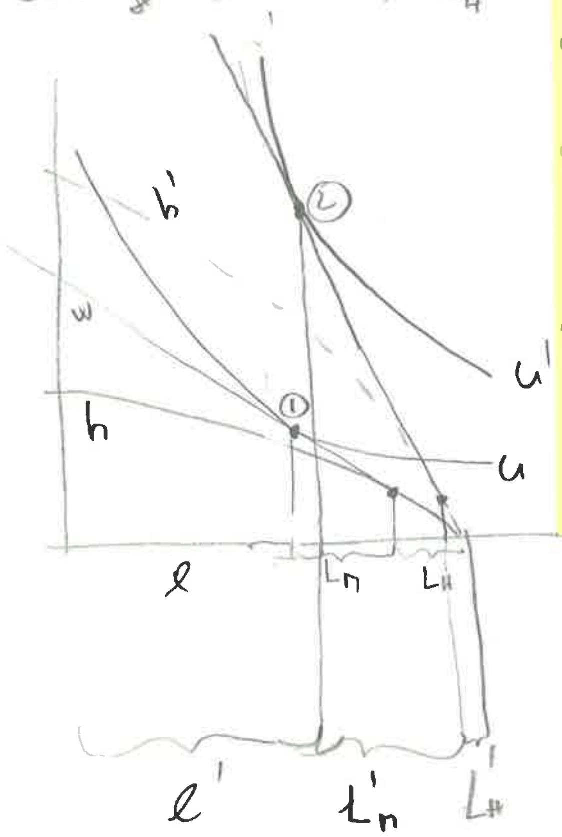
why?



CASE SCHOOLING - increases not only w but also shift $f(L_H)^a$

CASE Change in home and market productivity during decades $\Delta x/\Delta L_M$, $\Delta x/L_H$ ↗

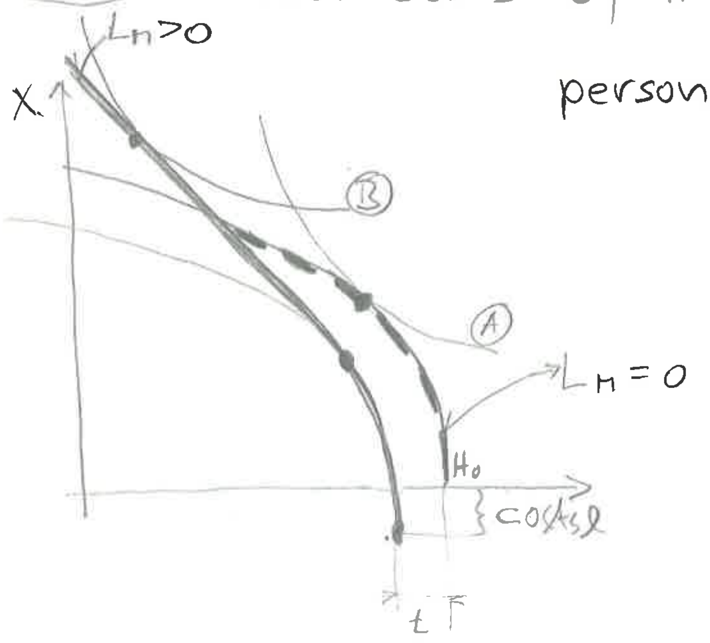
1 ~~Change in $\Delta x/\Delta L_H$~~



- ΔL_H ↘ if Δw ↗↗ => ΔT ↗ Δl ↘ ΔL_M
- ΔL_M & Δl depend on income & subst. eff.
- l ↘ if subst ≫ income eff.
  ↳ L_M ↗↗
- l ↗ if subst < income eff.
  ↳ L_M ↕

CASE Fixed costs of market work t ~ travel time

c ~ gas, ticket cost



person A will not work: $L_M = 0$

$$l + L_H = H_0$$

B will work

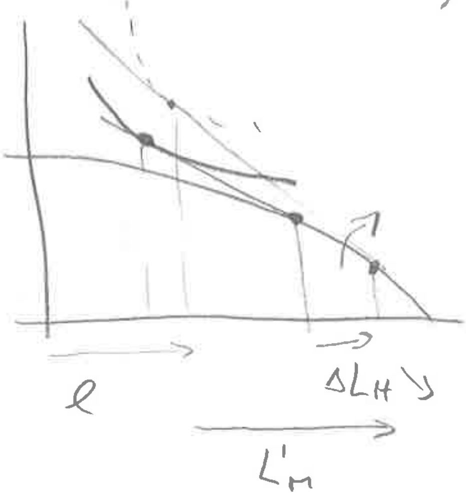
$$l' + L'_H + L'_M = H_0 - t$$

• CHILD-CARE PROGRAMS: enhance L_H & LM Part. of women

↳ impact on MRS$_{x\ vs.\ e}$ / F^*, F'

CASE Subsidy for every hour worked ~ opposite of taxation

⇒ ↑w: L_H↘; ΔL_M & $\Delta \ell$?



• original policy purpose is not certain in case of working women

• is certain in case of not-working women if subsidy high.

CASE Lump-sum subsidy ≡ free child-care

c ~ cost of child-care

Women Ⓐ, Ⓑ, Ⓒ

Ⓐ L_H = const, L_M↘, ℓ↗ (−)

Ⓑ L_H↘, L_M↕, ℓ↕ (+)

Ⓒ L_H = const, L_M = 0, ℓ = const