• INTRODUCING HOUSEHOL ECONOMY

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

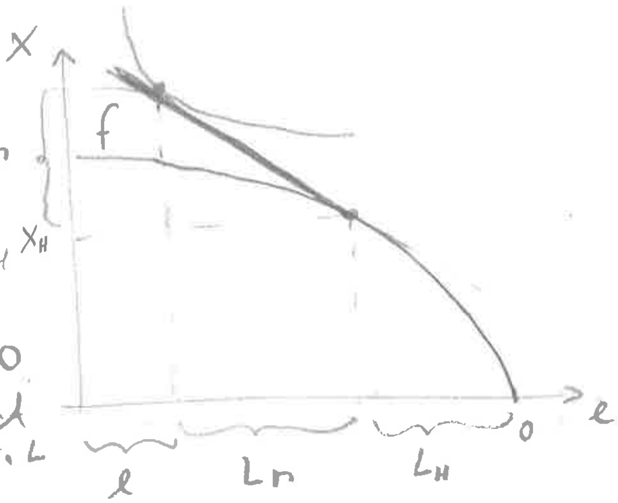
MODEL $u = u(x, \ell)$

$x = x_H + x_n + x_0$, $p = 1$

$T = \ell + L_H + L_n$ $\quad \frac{\partial f}{\partial x_n} = 0$ assume

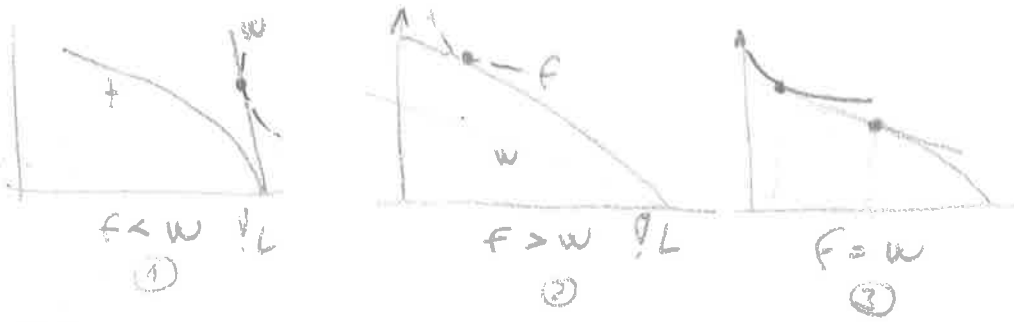
$x_H = f(L_H)$; $f' > 0$, $f'' < 0$

$x_M = \quad + wL_n$; x_M & x_H perfect subst. L



what affects participation on the L_n?

$f' \gtreqless w \longrightarrow$



FONC in CASE 3

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

~~READINGS~~

$$\mathcal{L}(x, \ell, \mu, \lambda) = u(x, \ell) + \lambda[x_0 + wL_n + f(L_H) - x]$$
$$+ \mu[T - \ell - L_n - L_H]$$

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

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

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

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

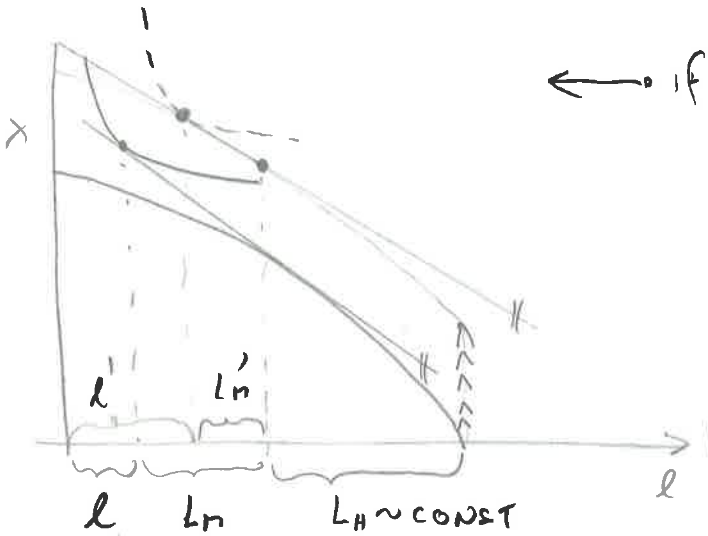
X mkt: $\Delta t \to \Delta L_m \to \Delta U^{m} = \frac{\partial U}{\partial X} w \Delta t$ (iii)

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

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

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

CASE Increase in non-labor income X_0

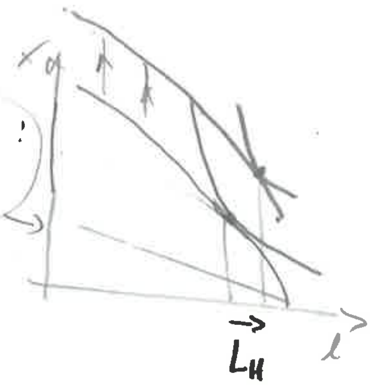


← if NORMAL GOOD, L_H will stay const.

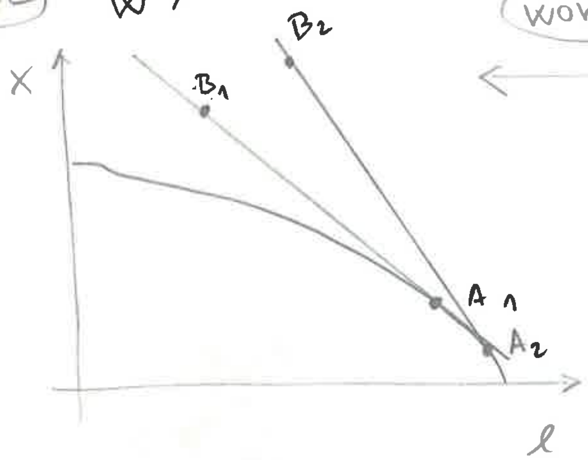
↗ l'

↘ Ln

If not on the LM: L_H ↘, l ↗

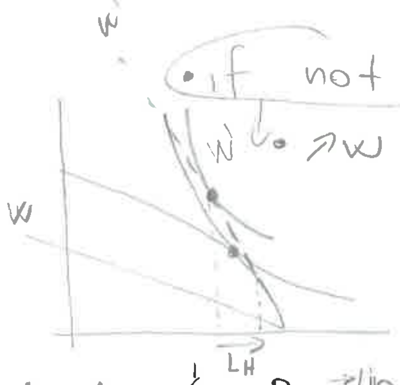


CASE W ↗



working person

← • L_H ↘, L_M ?, l ?



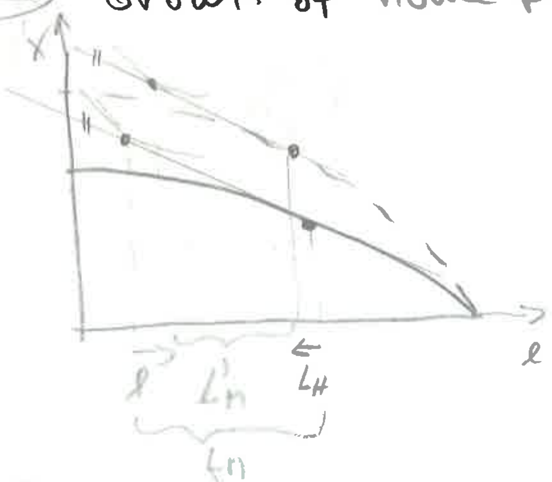
• if not on the LM

W • ↗w ⟹ • no effect

or

• participation L_H ↘, l?, Ln?

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



L_H ↗, Ln ↓ l ↑

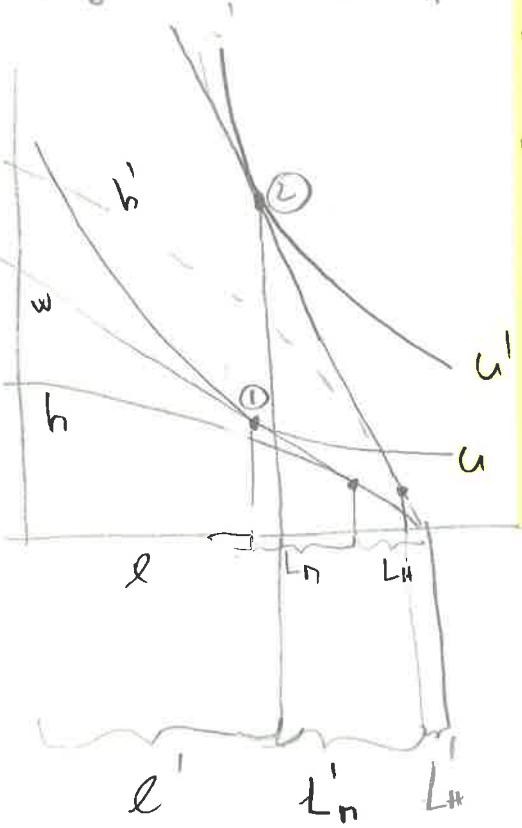
but empirically, we observe L_H ↘

why?

CASE SCHOOLING – increases not only w but also shift $f(L_H)$

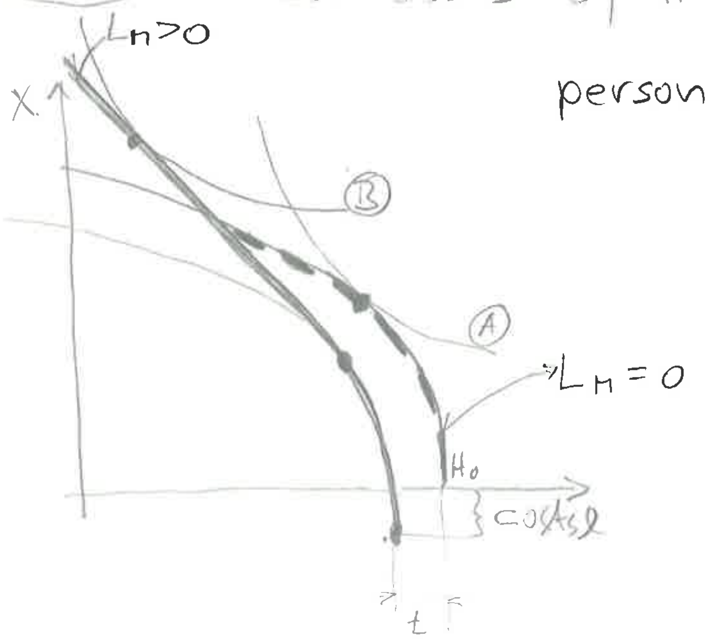
CASE Change in home and market productivity during decades $\Delta X/\Delta L_M$, $\Delta X/L_H$ ↗

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 Ⓐ will not work ; $L_M = 0$

$$l + L_H = H_0$$

Ⓑ will work

$$l' + L_H' + L_M' = H_0 - t$$