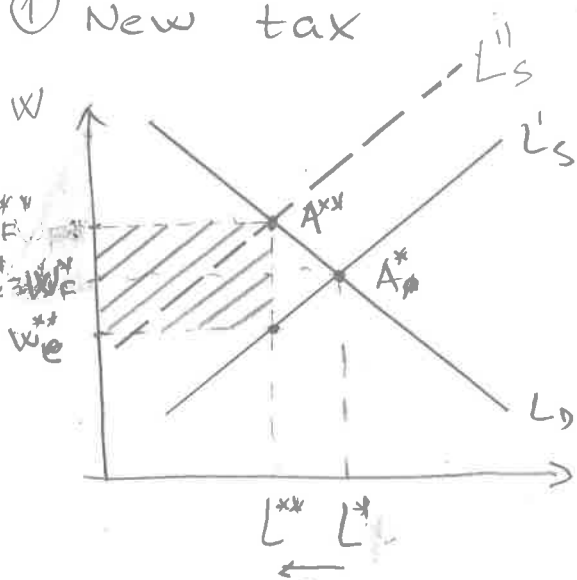


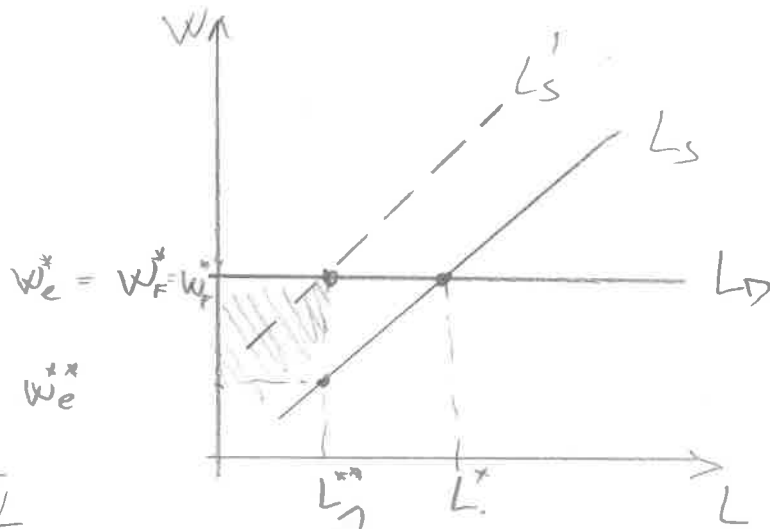
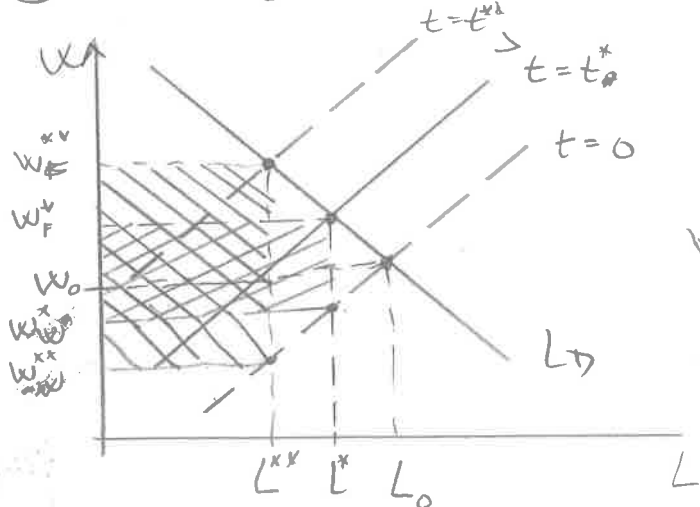
• CASE OF TAXATION OF LABOR

① New tax



$$T = L^{**} W_F^{**} (\text{tax})$$

② Change in tax



consider $\Delta t \rightarrow \Delta T$

\rightarrow "optimal" t ? $\max T$?

$$T = t w_F L$$

$$w_e = (1-t) w_F$$

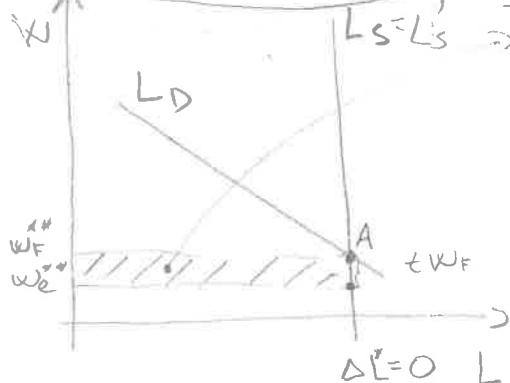
$$\begin{aligned} \frac{\partial T}{\partial t} = ? : \frac{\partial \ln T}{\partial t} &= \frac{\partial \ln t}{\partial t} + \frac{\partial \ln w_F}{\partial t} + \frac{\partial L}{\partial w_e} \frac{\partial w_e}{\partial t} \\ &= \frac{1}{t} + 0 + \underbrace{\zeta_s}_{\text{subst. eff}} \cdot \left(-\frac{1}{1-t}\right) \end{aligned}$$

$$\begin{aligned} \ln w_e &= \ln(1-t) + \ln w_F \\ \frac{\partial \ln w_e}{\partial t} &= -\frac{1}{1-t} \end{aligned}$$

for t_{opt} : $\frac{\partial \ln T}{\partial t} = 0 \rightarrow \frac{1}{t} - \zeta_s \frac{1}{1-t} = 0$

$$1-t = t \zeta_s \rightarrow \left[t_{opt} = \frac{1}{1+\zeta_s} \right] = \frac{1}{1+3} = 0.25$$

CASE Inelastic L_s



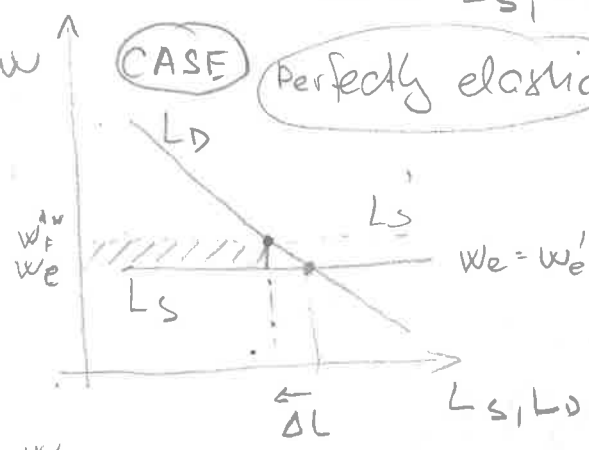
$T = t w_F L = (w_F^* - w_e^*) L$ → wage received (net)

$w_e^* = w_F^* (1 - t)$ → wage paid (gross)

• Tax burden on employees

$\Delta L = 0$ L_s, L_D

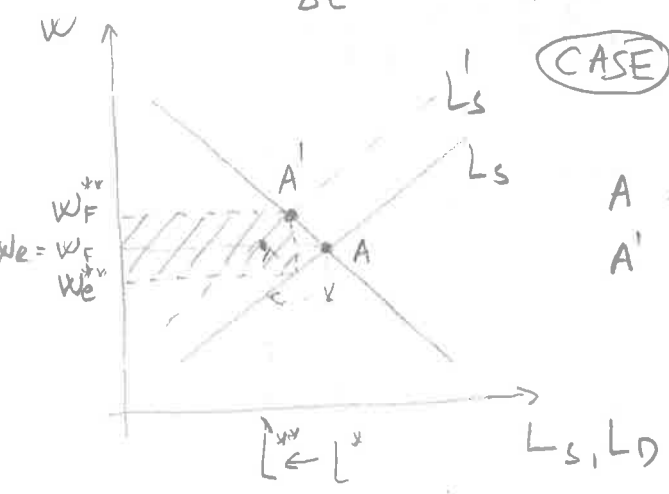
CASE Perfectly elastic L_s



• Tax burden on firms

• some (ΔL) people will stop working

CASE General one

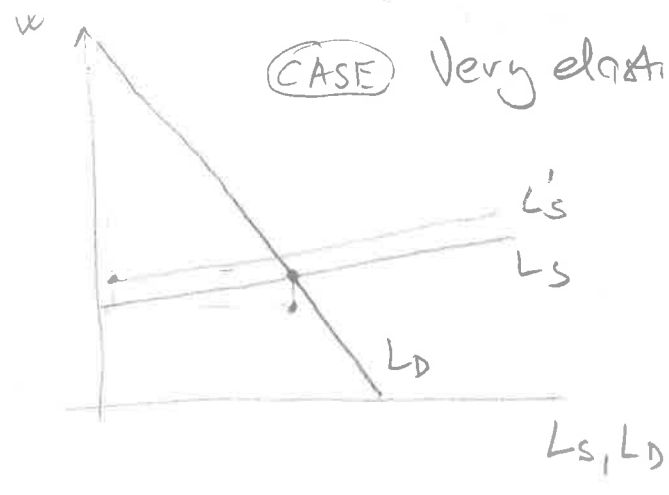


A ... initial equilibrium

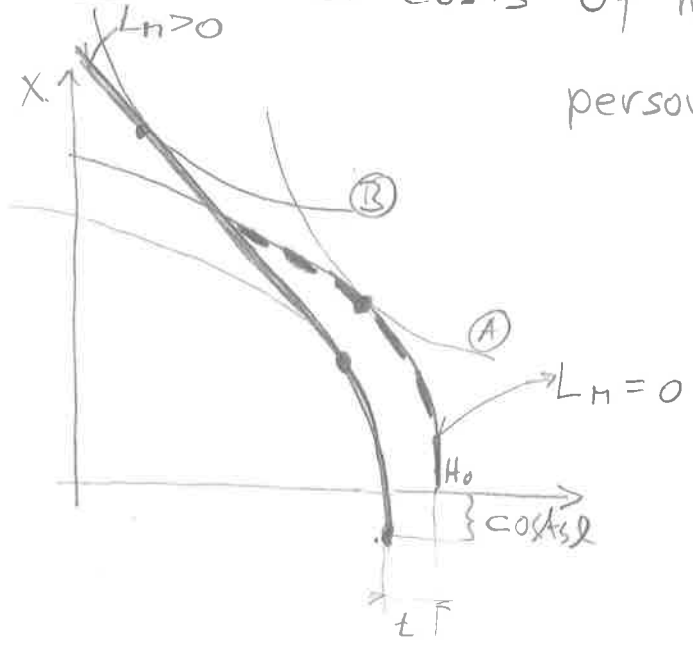
A' ... new equilibrium

$L^* < L^*$ L_s, L_D

CASE Very elastic L_s



CASE Fixed costs of market work t - travel time



person (A) will not work; C - gas, tied cost; $L_M = 0$

$$l + L_H = H_0$$

(B) will work

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