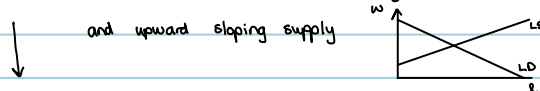


## Chapter 11: The Labor Market

- the labor market := an input market where workers supply  $l^*$  to firms who demand  $l^*$  for a wage of  $w^*$  determined by downward sloping demand and upward sloping supply



there is an associated output market for the service produced by the labor  $\frac{1}{3}$  the input market is derived from it

- labor demand: employers exist in a competitive labor market  $\frac{1}{3}$  therefore cannot change  $w^*$  on their own ... can only see  $w^*$   $\frac{1}{3}$  determine  $LD(w)$

• marginal product of labor :=  $MP_L$  := extra production from hiring 1 more worker

• marginal revenue product of labor :=  $MRP_L$  := marginal revenue from hiring 1 more worker :=  $MP_L \cdot P$

Rational Rule := hire as long as  $MRP_L \geq w \Rightarrow$  hire where profits are maximized

demand curve =  $MRP_L$  curve = downward sloping  $\frac{1}{3}$  moved along as wage changes

$\hookrightarrow$  shifted by shifts in output market

shifted by changes in price of capital

scale effect: price of capital  $\downarrow \Rightarrow$  buy more capital  $\Rightarrow$  need more workers to produce more  
substitution effect: price of capital  $\downarrow \Rightarrow$  buy more capital  $\Rightarrow$  workers replaced

better management  $\frac{1}{3}$  productivity gains  $\Rightarrow$  demand shifts out

nonwage benefits  $\frac{1}{3}$  taxes shift demand back

- individual labor supply: workers choose between labor  $\frac{1}{3}$  leisure through the income  $\frac{1}{3}$  substitution effects of wages

• income effect := higher income makes leisure more attractive

• substitution effect := higher wages make work more attractive

COMPETING EFFECTS

Rational Rule: work as long as wage  $\geq MB_{\text{leisure}}$

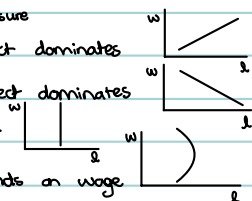
supply curve: upward sloping if substitution effect dominates

downward sloping if income effect dominates

vertical if effects cancel each other

bending if dominating effect depends on wage

• at low wages, substitution effect dominates; at high wages income effects dominate



$\hookrightarrow$  shifted by other uses of time, other sources of income, changes in need for labor/income, experience

- market labor supply: upward sloping

$\hookrightarrow$  1 job type = 1 market

- more people enter workforce, existing workers put in more hours, ppl switch jobs

$\hookrightarrow$  shifted by other occupation wages changing, population changes, unemployment benefits changing, taxes  $\frac{1}{3}$  employment benefits change