

What does Acemoglu tell us?

not yet endog. growth

Neoclass. growth w/ human capital (p. 393) (a two-sector growth model)

• RC is  $C_t + I_t^K + I_t^H = F(K, H, L)$  → maybe our RC needs to take that into account

•  $(k, c)$  has the same BGP as the one-sector model

(!) • p. 411 "with the important caveat that there might be global externalities that remain unmeasured"

Measuring externalities in human capital

p. 407

$$\ln W_{j,m} = X'_{j,m} \beta + \rho_p S_{j,m} + \rho_e S_m$$

$\nwarrow$  wage?  
 $\uparrow$  controls  
 $\nearrow$  private return to schooling  
 $\uparrow$  years of schooling indij  
 $\nearrow$  "external return to schooling"  
 $\uparrow$  avg years of schooling in labor market m

Growth with Externalities (p. 430 ff.)

• Romer (1986) → physical capital externalities  
 Lucas (1988) → human capital externalities

•  $Y_t = F(K_t, A_t L_t)$  w/  $A_t = B K_t$  p. 430-431  
 "learning-by-doing"

• Mokyr (1990): GPTs ["electricity or the computer"] "changed the organization of production in many different product lines."  
 = "a 'macro' innovation" p. 447  
 GPT is more a process innovation than a product innovation

• A problem: A argues that "macro innovations" are less important than micro ones ⇔ that growth as a byproduct of econ activity (spillovers) are quantitatively less important than intentional investments of the econ in growth ("market-shaped incentives determine the rate at which the technology of the economy evolves over time") p. 481

## Technology Diffusion

p. 702 "Many studies find a correlation between plant productivity and [...] various measures of technology (in particular IT technology)"

↳ Davis & Foray (1991) X  
Doms, Dunn & Troske (1997)  
Black & Lynch (2004)

Griliches (1957)

p. 703 The S-shape of adoption can be showed to obtain from a model of (knowledge) spillovers Jovanovic & Lach (1983)

## Learning-by-doing in trade

p. 793: MP's of 2 sectors need to be equalized.

Note: 2-sector AK model: (own notes p. 121)

$$\bullet \frac{\dot{P}_1}{P_1} = -(1-\alpha) g_K$$

• inv-prod sector vs. C-prod sector. The diff is that the inv-prod sector is more capital-intensive.

$$\bullet g_K \geq g_C \quad [g_K = \frac{1}{\alpha} g_C]$$