Politiques de Croissance

Question

- Comment stimuler la croissance de la productivité dans les pays avancés et dans les pays émergeants?

Growth Meets Development (1)

- Two strategies for technological progress: innovation and imitation
- If the fraction μ_n of sectors innovates and the fraction μ_m imitates:

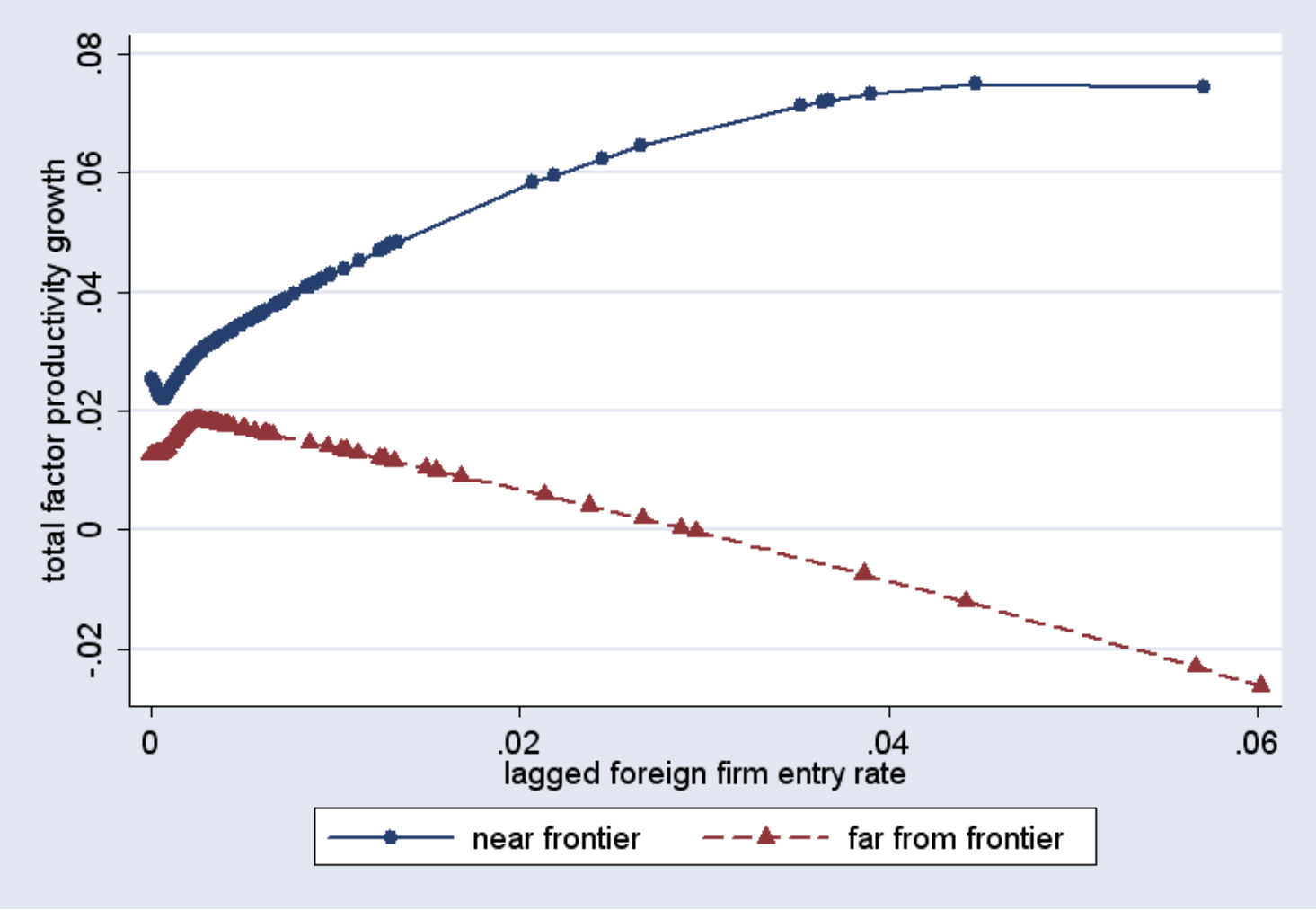
$$A_{t+1} - A_t = \mu_n (\gamma - 1) A_t + \mu_m \left(\overline{A}_t - A_t\right)$$

- Thus engine of growth depends on "proximity" $a_t = A_t / \overline{A}_t$:

$$g_t = \frac{A_{t+1} - A_t}{A_t} = \mu_n (\gamma - 1) + \mu_m \left(a_t^{-1} - 1\right)$$

Enhancing productivity growth in advanced countries

- Investment in higher education
- Liberalization of product market
- Liberalization of labor market
- Equity financing


total factor productivity growth
-.02
0
.02
.04
.06
.08
0
.02
.04
.06
lagged foreign firm entry rate
near frontier
far from frontier

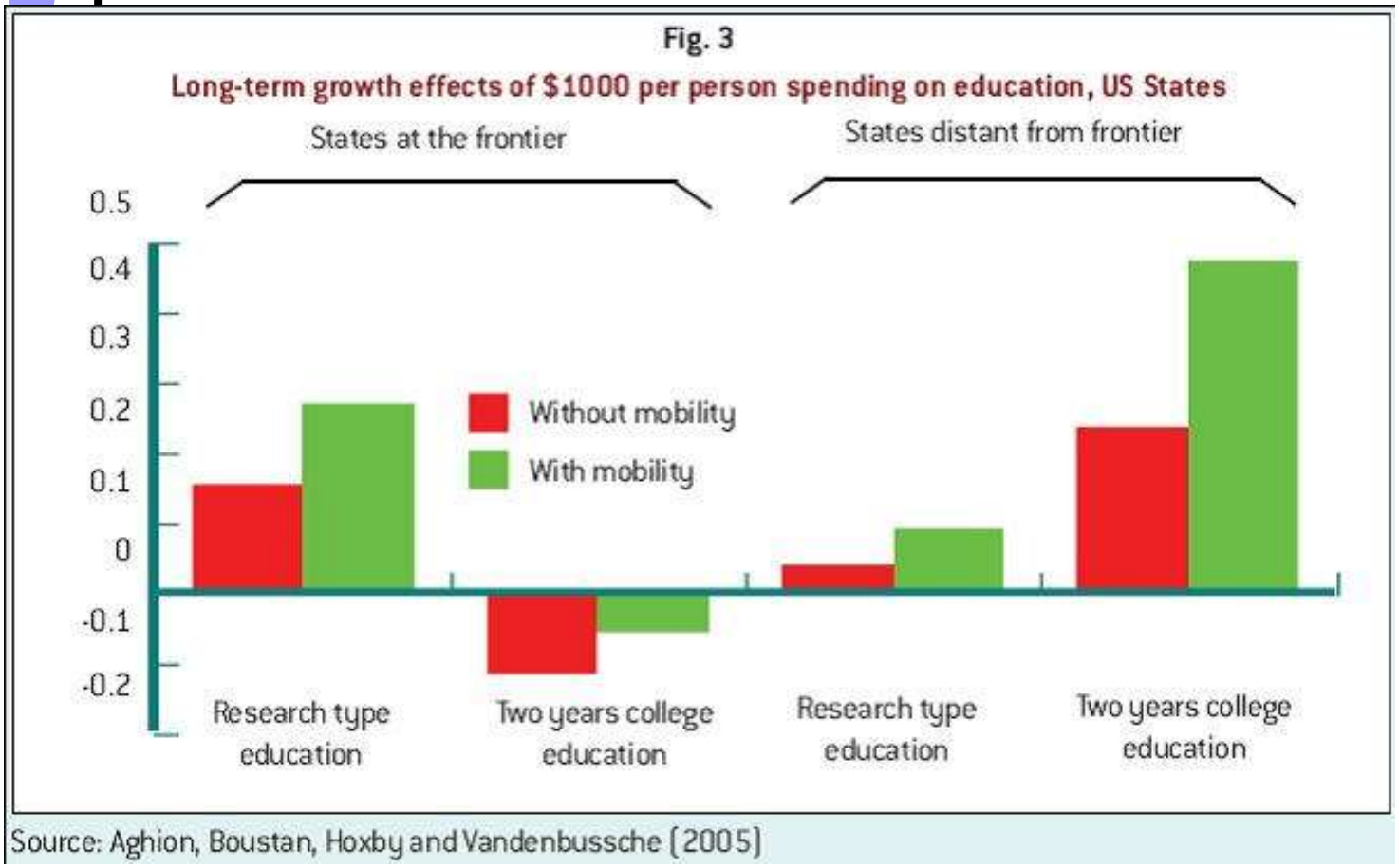


Fig. 3
Long-term growth effects of $1000 per person spending on education, US States
States at the frontier
States distant from frontier
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
Without mobility
With mobility
Research type education
Two years college education
Research type education
Two years college education
Source: Aghion, Boustan, Hoxby and Vandenbussche (2005)

EPL

Variable	eq1	eq2	eq3	eq4	eq5
Leader MFP growth	0.02949	0.02996	0.02830	0.02813	
Gap to Leader	-0.00858***	-0.00836***			
EPL	-0.00000				
EPL, for highest tercile		0.00002	-0.00009**	-0.00011**	-0.00015***
EPL, for middle tercile		0.00004*	0.00002	0.00001	0.00001
EPL, for lowest tercile		0.00004	-0.00005	0.00002	0.00003
MFP Gap, for highest tercile			-0.01261***	-0.00816	-0.00547
Gap, for middle tercile			-0.00276	-0.00174	-0.00210
Gap, for lowest tercile			-0.00901***	-0.01095***	-0.01173***
EPL*Gap, for highest tercile				-0.00017	-0.00029*
EPL*Gap, for middle tercile				-0.00004	-0.00003
EPL*Gap, for lowest tercile				0.00012*	0.00014**
Leader growth, for highest tercile					0.13600***
Leader growth, for middle tercile					0.00817
Leader growth, for lowest tercile					-0.02597

legend: * p<.1; ** p<.05; *** p<.01

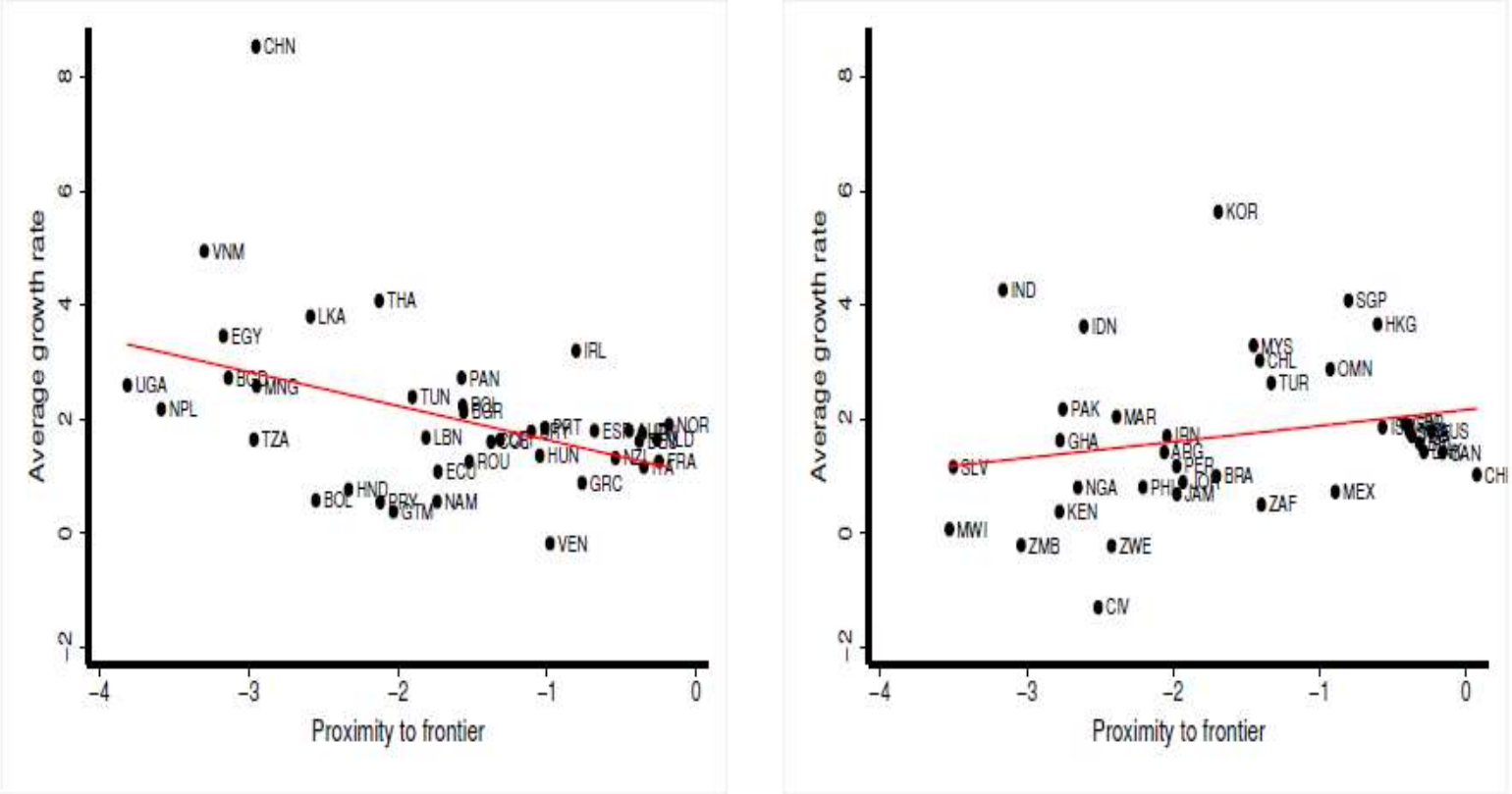


Figure 1: Average growth rate and Proximity to the frontier for the Bank-Based (left) and Market-Based (right) countries (per capita GDP growth rate)

Panel : Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Iceland, Italy, Japan, Korea, the Netherlands, Norway, Portugal, Spain, Sweden, the United Kingdom and the United States.

Times period : 1995-2007

Dependant variable : Hourly labour productivity growth (instrumental variables method)

	(1)	(2)	(3)	(4)	(5)
Changes in capacity utilization rate	0.00200***	0.00190***	0.00161***	0.000908	0.000634
	(0.000622)	(0.000499)	(0.000475)	(0.000648)	(0.000702)
Growth in working time	-0.583***	-0.787***	-0.797***	-0.784***	-0.698***
	(0.170)	(0.138)	(0.138)	(0.157)	(0.172)
Changes in the employment rate	-0.529***	-0.641***	-0.653***	-0.878***	-0.809***
	(0.177)	(0.165)	(0.160)	(0.203)	(0.217)
Share of ICT production in total VA	0.930***	0.344*	0.372**	0.0614	0.170
	(0.261)	(0.195)	(0.179)	(0.164)	(0.178)
Share of pop. (>15) w/ some higher educ.		0.0808**			
		(0.0348)			
EPL			-0.00726**		
			(0.00307)		
PMR(t-2)				-0.0103**	
				(0.00486)	
EMPL* PMR(t-2)					-0.00368***
					(0.00130)
Constant	-0.0376**	-0.0199	0.0107	0.0296**	0.0197*
	(0.0160)	(0.0153)	(0.0118)	(0.0137)	(0.0113)
Observations	163	149	142	95	95
P-value of the Durbin-Wu-Hausman endogeneity test	0.00066	0.02912	0.03388	0.02966	0.01112
P-value of Baumann test of overidentifying restrictions	0.6354	0.2581	0.4140	0.2075	0.7716

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Enhancing productivity growth in emerging market economies

Enhancing productivity growth in emerging market economies

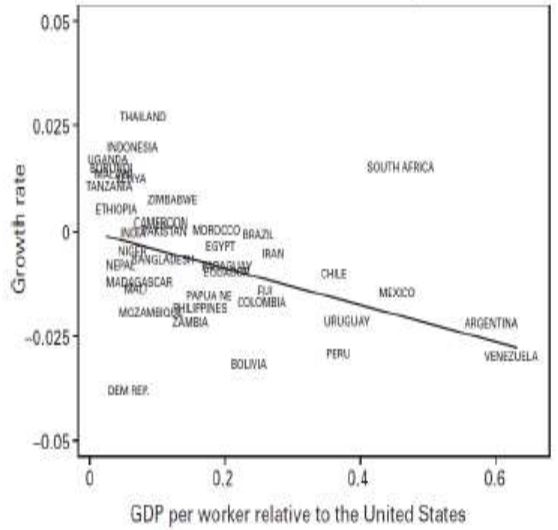
- Foster technology transfers
- Improve management practices
- Reallocate factors

Foster technology transfers

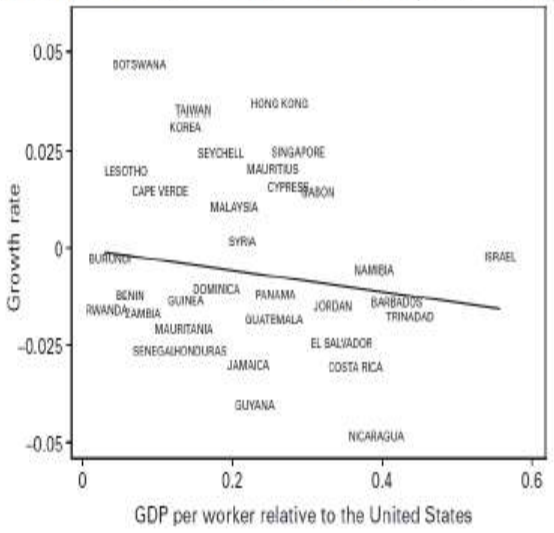
- Education
- Openness
- FDI

Growth, Openness and Distance to Frontier

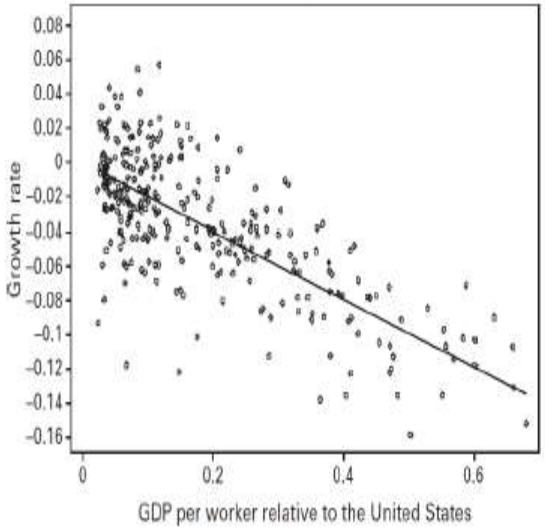
Less Open Countries (CR-SEC)



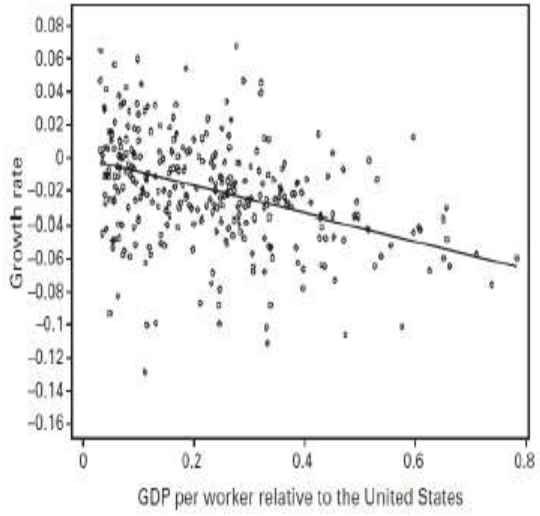
More Open Countries (CR-SEC)



Less Open Countries (Panel)

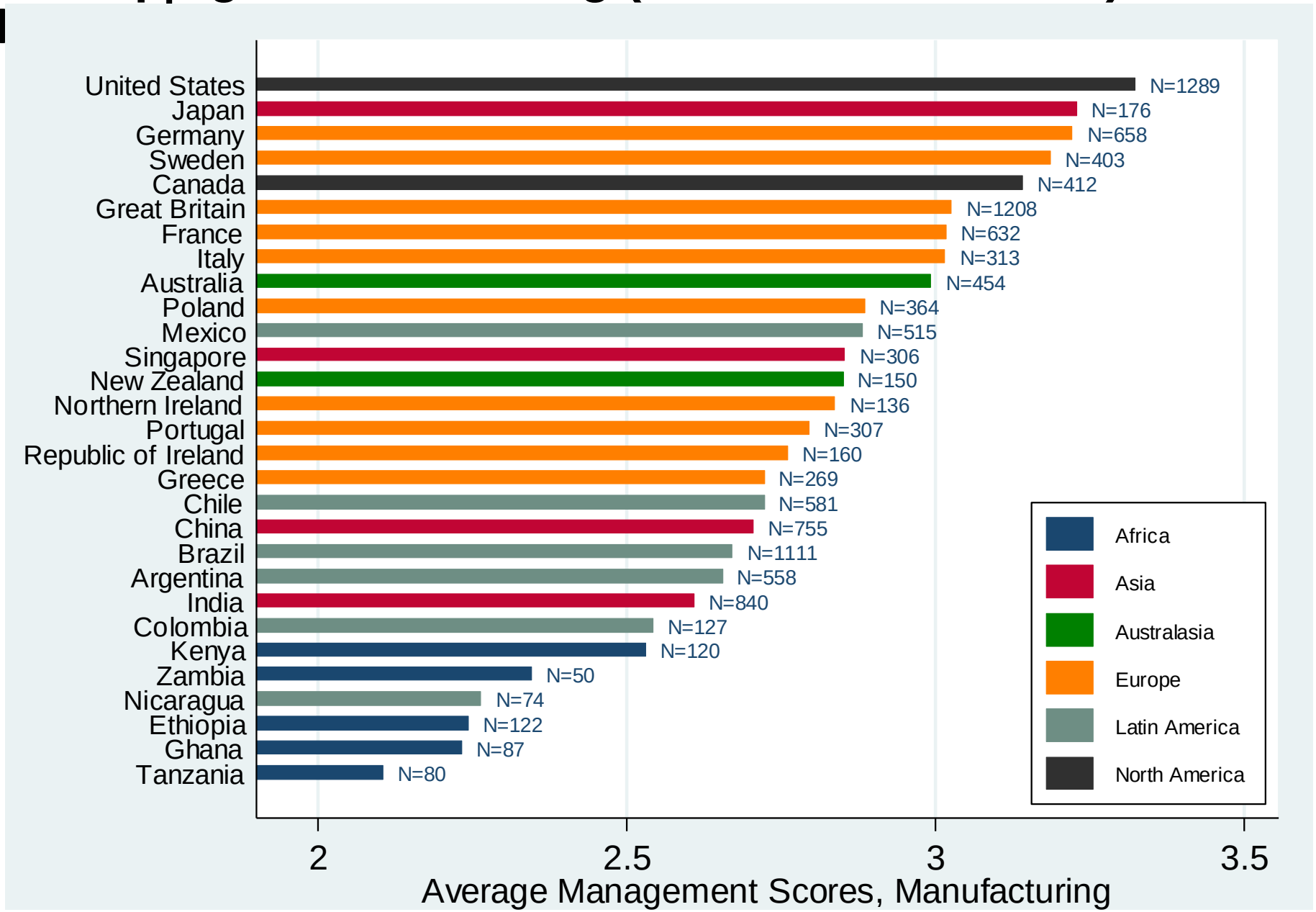


MoreOpen Countries (Panel)

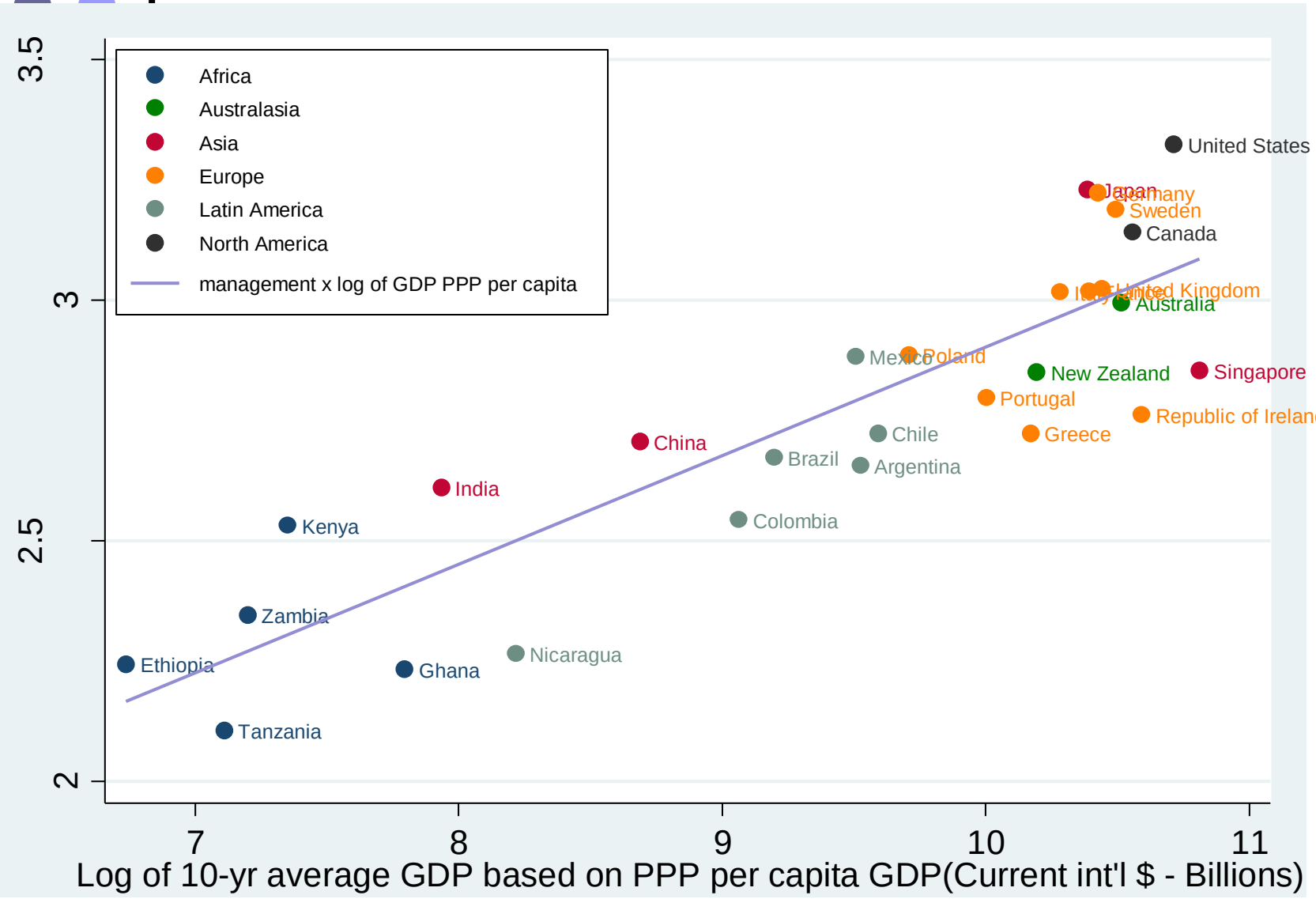


Management practices

Wide variation in management: US and Japan leading, developing nations trailing (includes 2013 wave)



Average management scores across countries are strongly correlated with GDP per capita



Data includes 2013 survey wave as of 9/20/2013. Africa data not yet included in the paper

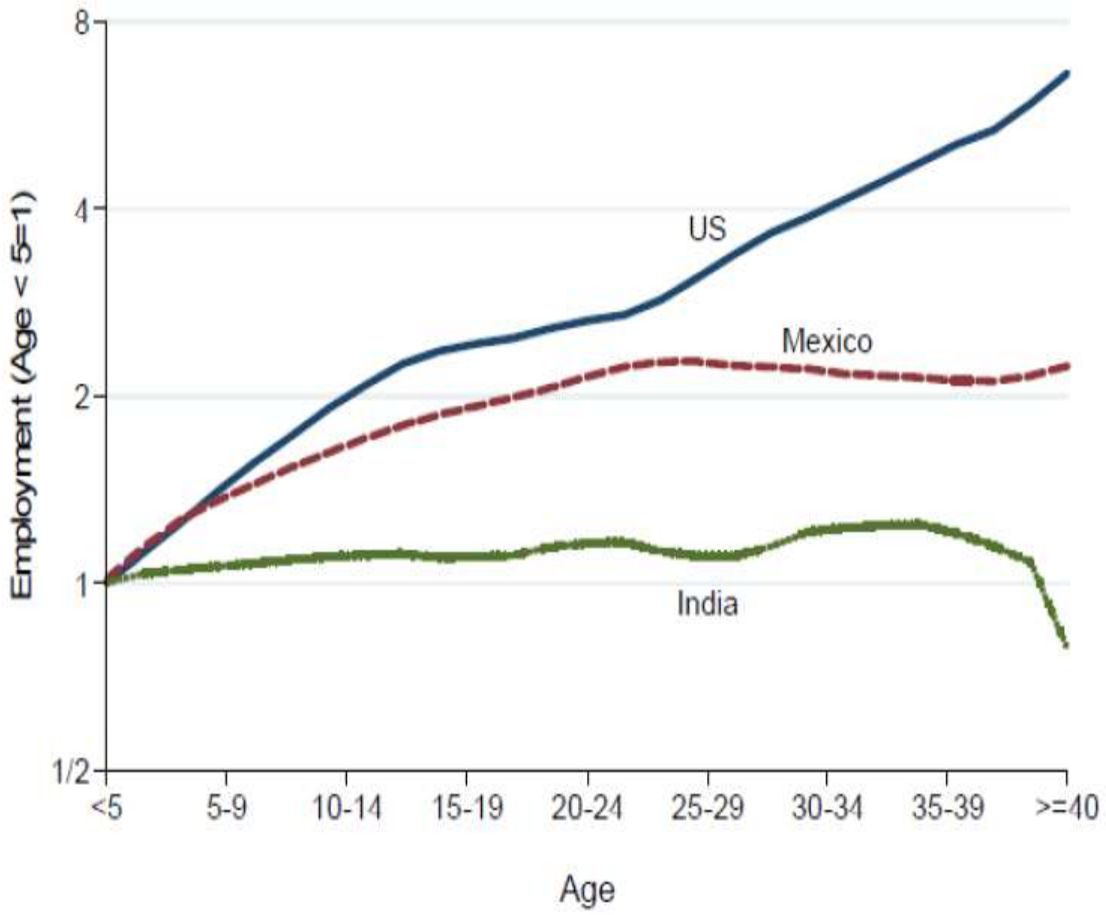
Reallocation

- Education,
- Credit
- Labor market flexibility

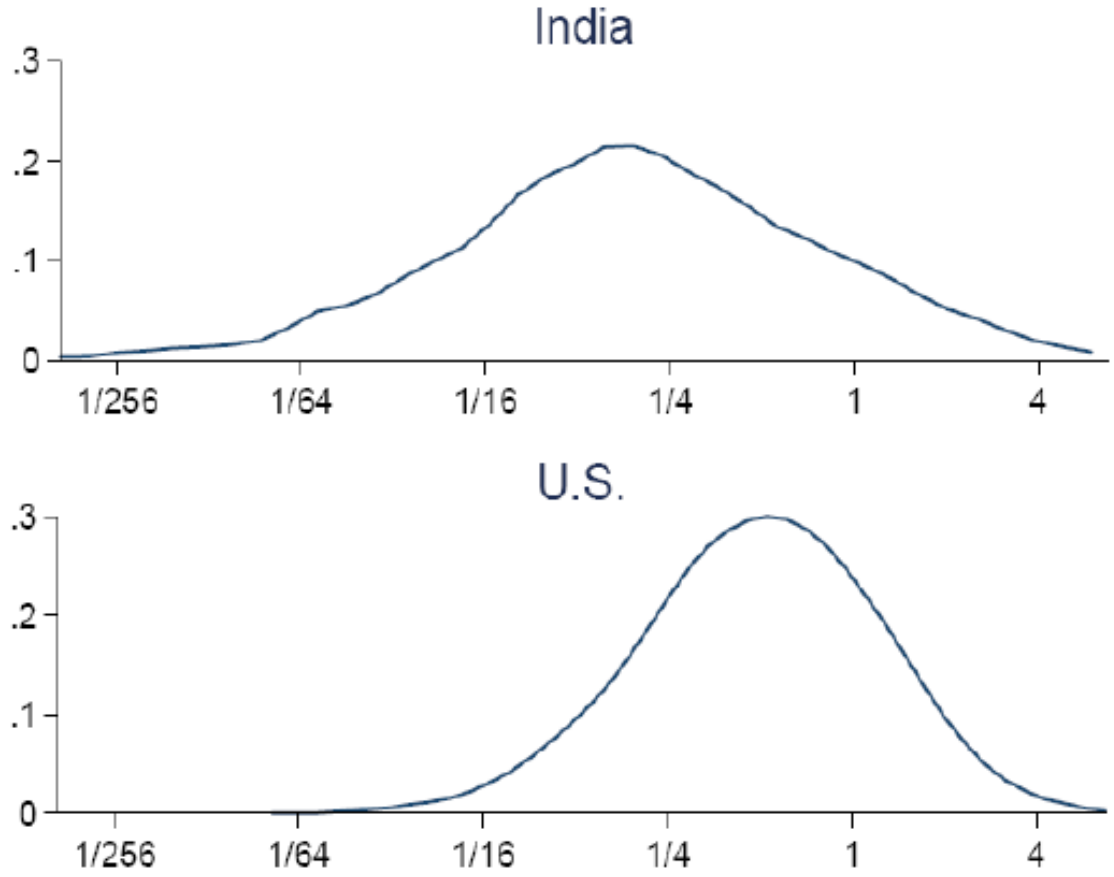
Growth Meets Development (7)

- In a recent work, Hsieh and Klenow document that life-cycle of firms show big differences across countries:

Figure 1: Plant Employment by Age in the Cross-Section



DISTRIBUTION OF PLANT TFP DIFFERENCES IN US VS. INDIA HIGHER US TFP DUE TO REALLOCATION - THINNER "TAIL" OF LESS PRODUCTIVE PLANTS

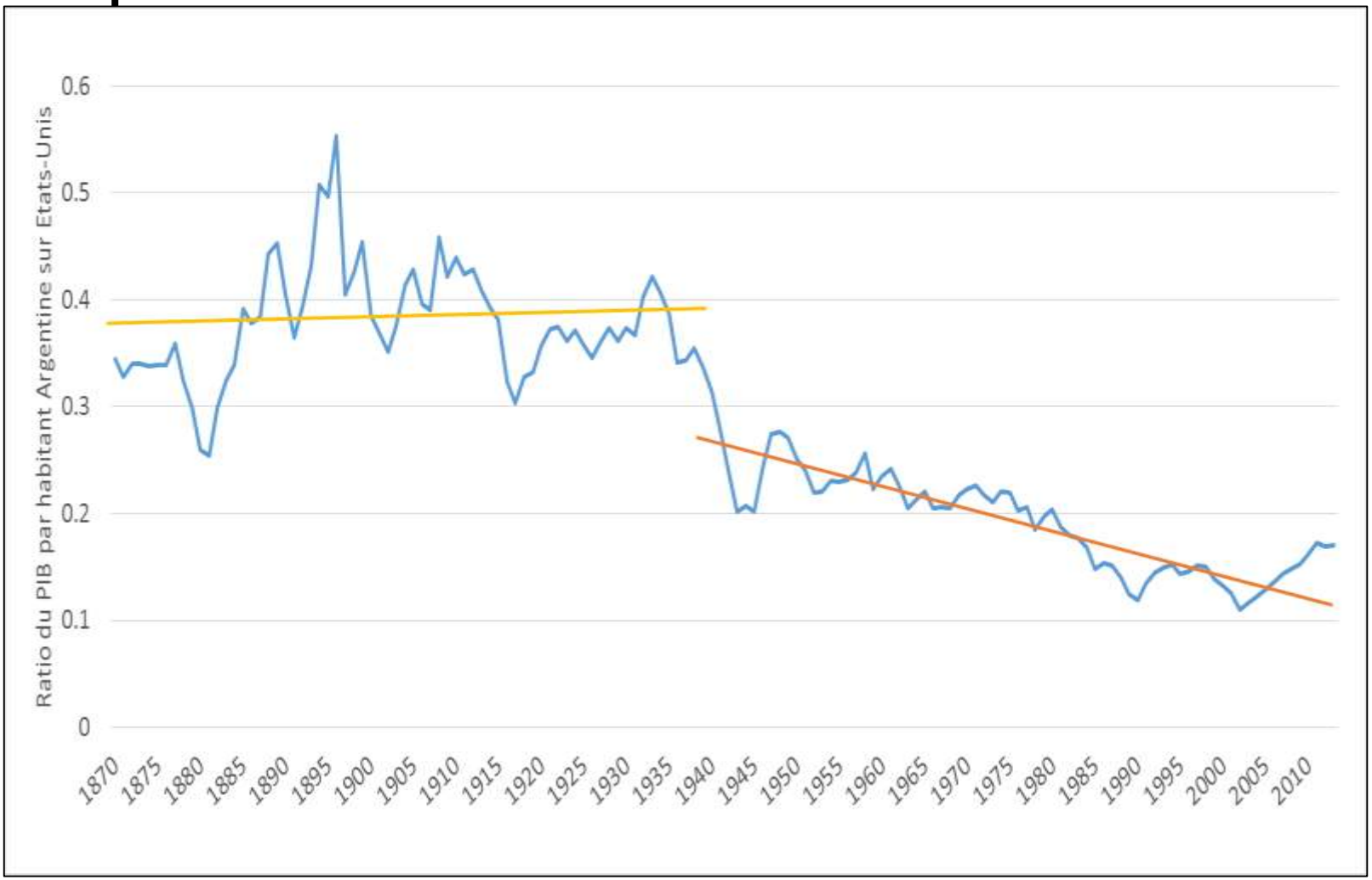


Source: Hsieh and Klenow (2009); US mean=1

Conclusion

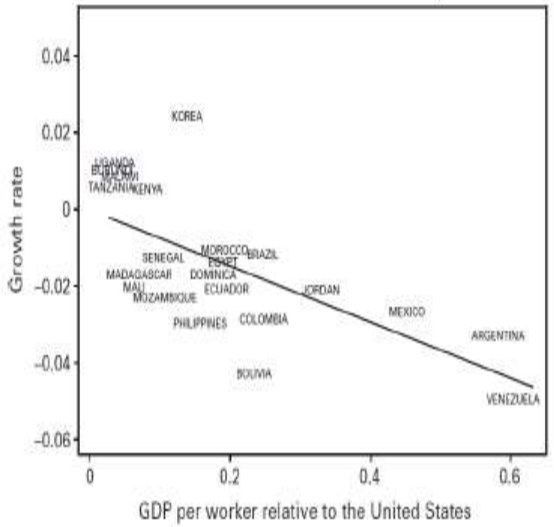
- Politiques de croissance appropriées
- Dangers d’une middle income trap
- Rôle de la concurrence entre pays?

Ratio du PIB par habitant de l'Argentine sur le PIB par habitant des Etats-Unis et tendance entre 1870 et 2013

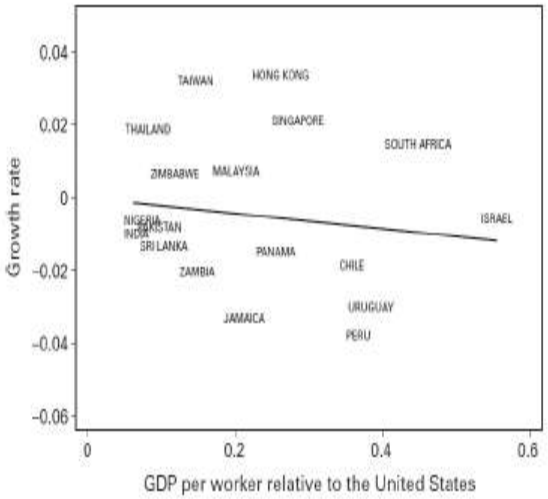


Growth, Entry and Distance to Frontier

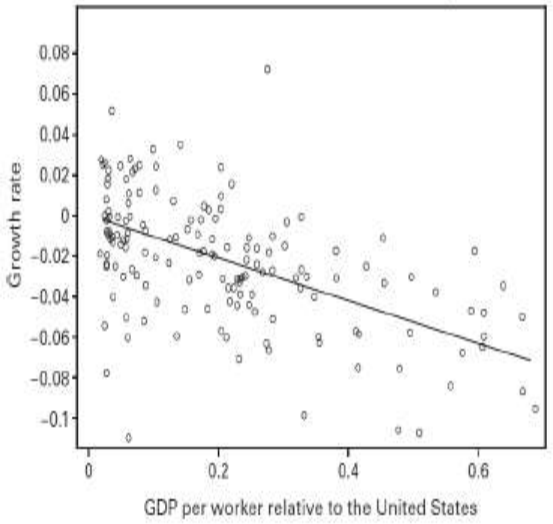
High Barrier Countries (Cr-Sec)



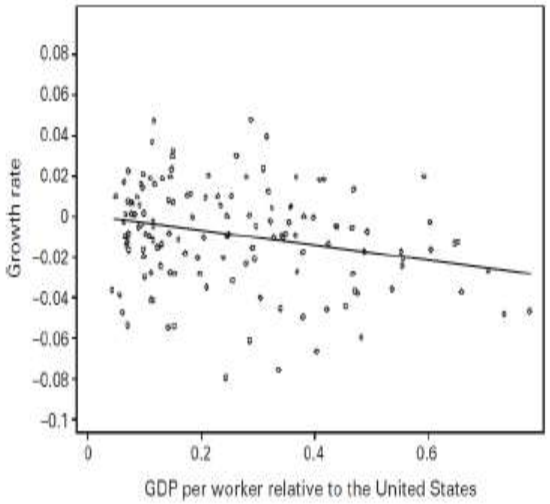
Low Barrier Countries (Cr-Sec)



High Barrier Countries (Panel)



Low Barrier Countries (Panel)



Growth, Democracy and Distance to Frontier