

Unhealthy People are Poor People... and Vice Versa



By Xavier Sala-i-Martin,
Columbia University
and Universitat Pompeu Fabra

Life, Liberty and the Pursuit of Happiness



Poverty → Health

- Poor cannot afford medical care
- Poverty does not induce R&D
- Poor people are malnourished (immunodeficiency)
- Poor have less access to water and sanitation (diarrhea, colera, typhoid fever)
- Poor live away from doctors and hospitals
- Poor are less likely to be educated
- Poor girls are less likely to be able to refuse sex with powerful rich men
- AIDS is mainly in (Southern) Africa

AIDS IN SOUTHERN AFRICA

- Percent Infected / Percent Pregnant Women:
 - Botswana 35% and 43%
 - Swaziland 25% and 30%
 - Lesotho 24% and 30%
 - South Africa 20% and 19%
 - Namibia 20% and 26%

Poverty ← Health

- We, in the growth literature, are increasingly interested in how health factors affect the growth rate of an economy

Growth Regressions:

- BACE Method: Robust Variables include
 - Life Expectancy
 - Malaria Incidence
- HOW?
- $Y = A F (K , h^*L)$
 - $h^*L =$ Human Capital
 - $K =$ Physical Capital
 - $A =$ Aggregate Efficiency

Effects on Human Capital

- $Y = AF(K, hL)$

- h is the productivity of the human body
- Health has a Direct Effect: Sick kids weigh less, are shorter and have lower brain capacity
- Effect through Education

Effect Through Education

- Sick kids miss school (Miguel and Kremer 2002 on hookworm, roundworm, whipworm, and schistosomiasis in Kenyan schools)
- Beckerian quantity/quality of children tradeoff
- Incentives: low life expectancy reduces rate of return to schooling
- Complementarities across diseases (Dow, Phillipson and Sala-i-Martin 1999)
- Orphans and Parental guidance (14 million orphans in Africa)

Effects on Physical Capital

$$Y=AF(K,hL)$$

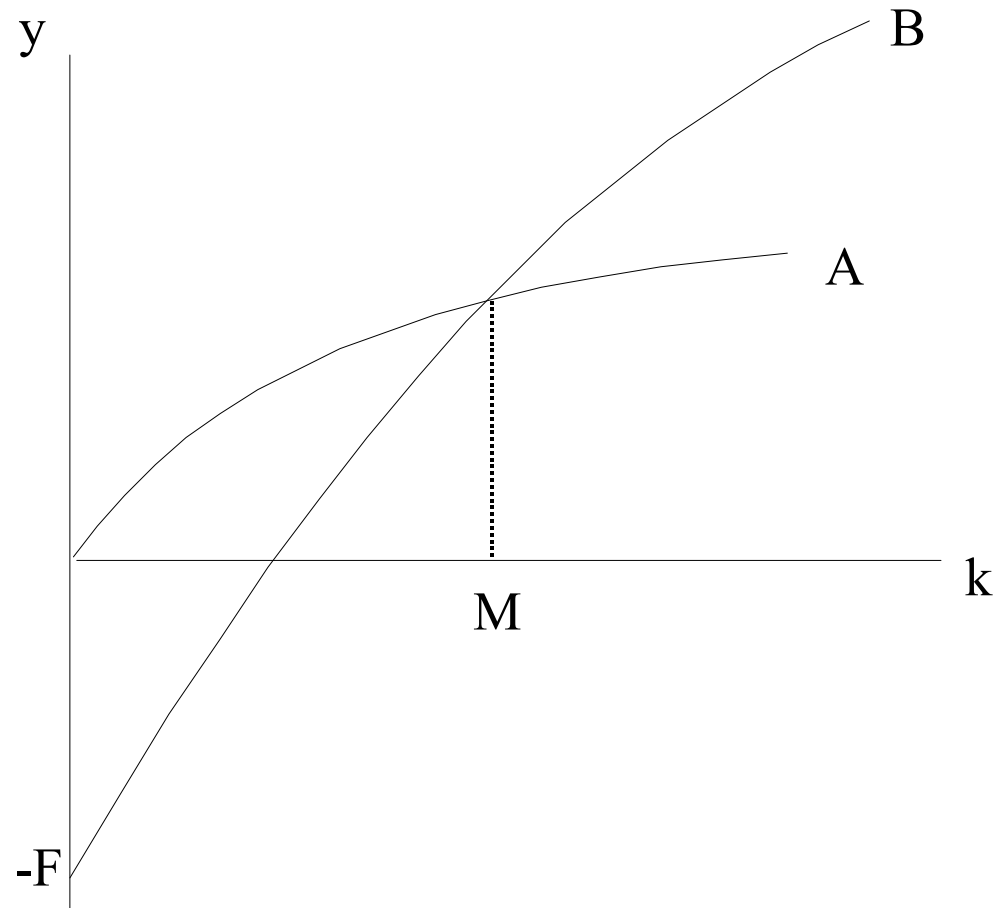
- Low life expectancy, low incentives to save for lifecycle reasons.
- Complementarity between K and H
 - Low education, low investment
 - High training costs
 - Funeral Absenteeism
- Public Investments (government budget constraint)
- Financial Traps caused by illness

Effects on Aggregate Efficiency:

$$Y = AF(K, hL)$$

- Choice of the production function
 - Imagine two functions
 - $Y = AF(K, hL)$
 - $Y = BK - PL$

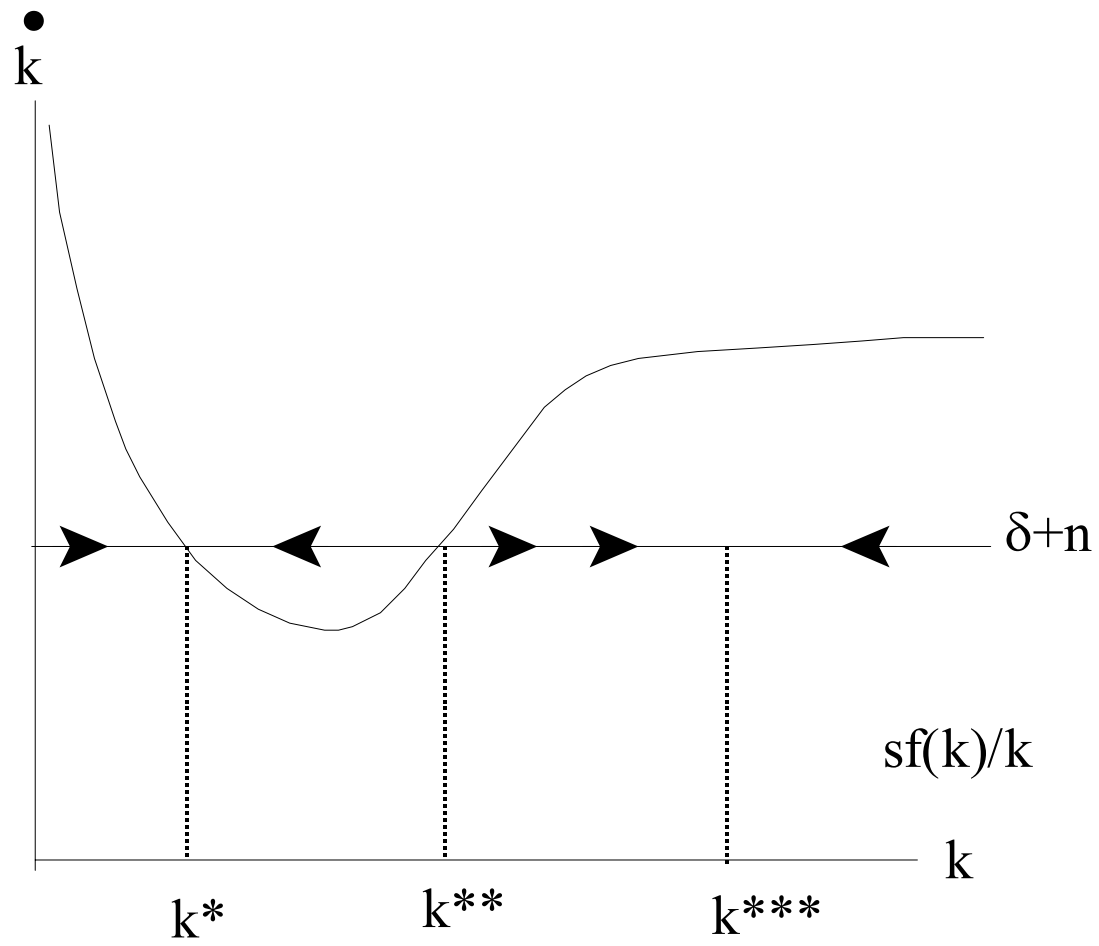
Effective Production Function



Solow-Swan

- Growth = $sf(k)/k - (* + n)$

Growth and Traps



Institutions

- Choice of production function
- Choice of Institutions (Acemoglu, Johnson and Robinson 2002)

Solutions?

- Tackle health and growth **simultaneously!!**
 - good education system does not pay if kids have no incentives due to health
 - good health system does not pay if people remain poor, and subject to other diseases
 - Need to get them both at the same time

To Promote Health...

- Micro Actions:
 - Vaccination Programs
 - Doctors
 - Hospitals
 - etc.
- Macro Actions:
 - R&D

R&D...

- Need to solve the time inconsistency problem
 - We want to keep PATENTS so that R&D is induced: profits need to be guaranteed
 - We want to supply drugs and vaccines at or below cost: profits need to be killed
- Need to make two goals compatible
 - Expropriation is NOT the solution
 - Dual Pricing is NOT the solution
 - Research Fund (Kremer Vaccines)

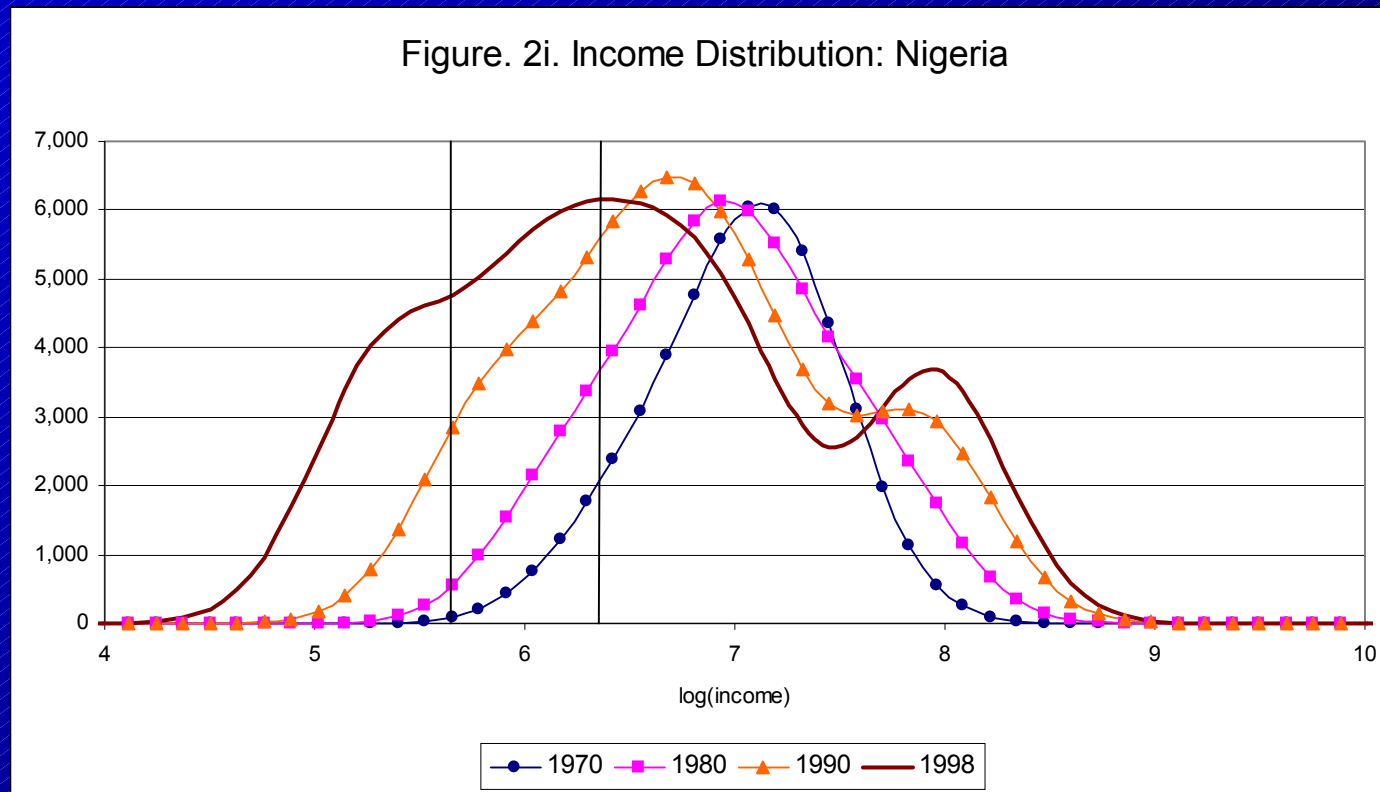
To Promote Growth...

- Institutions: property rights, free society, justice, peace.
- Right environment for business.
- Macroeconomic Stability
- Investment in Education
- Investment in Infrastructure
- Openness: on both sides (including less European and American Protectionism)
- Always keep an eye on Poverty Reduction:
Political Instability

How

- Some must be international help:
 - Money
 - Vaccines
 - Protectionist Policies
- Some must be them...and here is a problem

Income Distribution in Nigeria



It's like quitting smoking ...

New Partnership for African Development (NEPAD)



- Good idea because it comes from African Leaders
- But they need to WANT to do it!!!