Introduction to development economics

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What is development?

Processes

- Economic growth
  - Ability to support citizens using tax revenue, to provide continuing improvements in living standards
- Improvements in health and well being
- Improvement in education
- Attaining and maintaining individuals rights
  - Sen: Achievement of "basic capabilities"
    - Ability to participate fully in society
    - Democracy and deliberation

What is development?

End points

- Ending poverty
- Ending hunger
- Avoiding and mitigating risk
- Overcoming ignorance
- Overcoming oppression
- Reducing inequality

What is economic development?

- The study of how countries achieve ongoing growth in economic activity

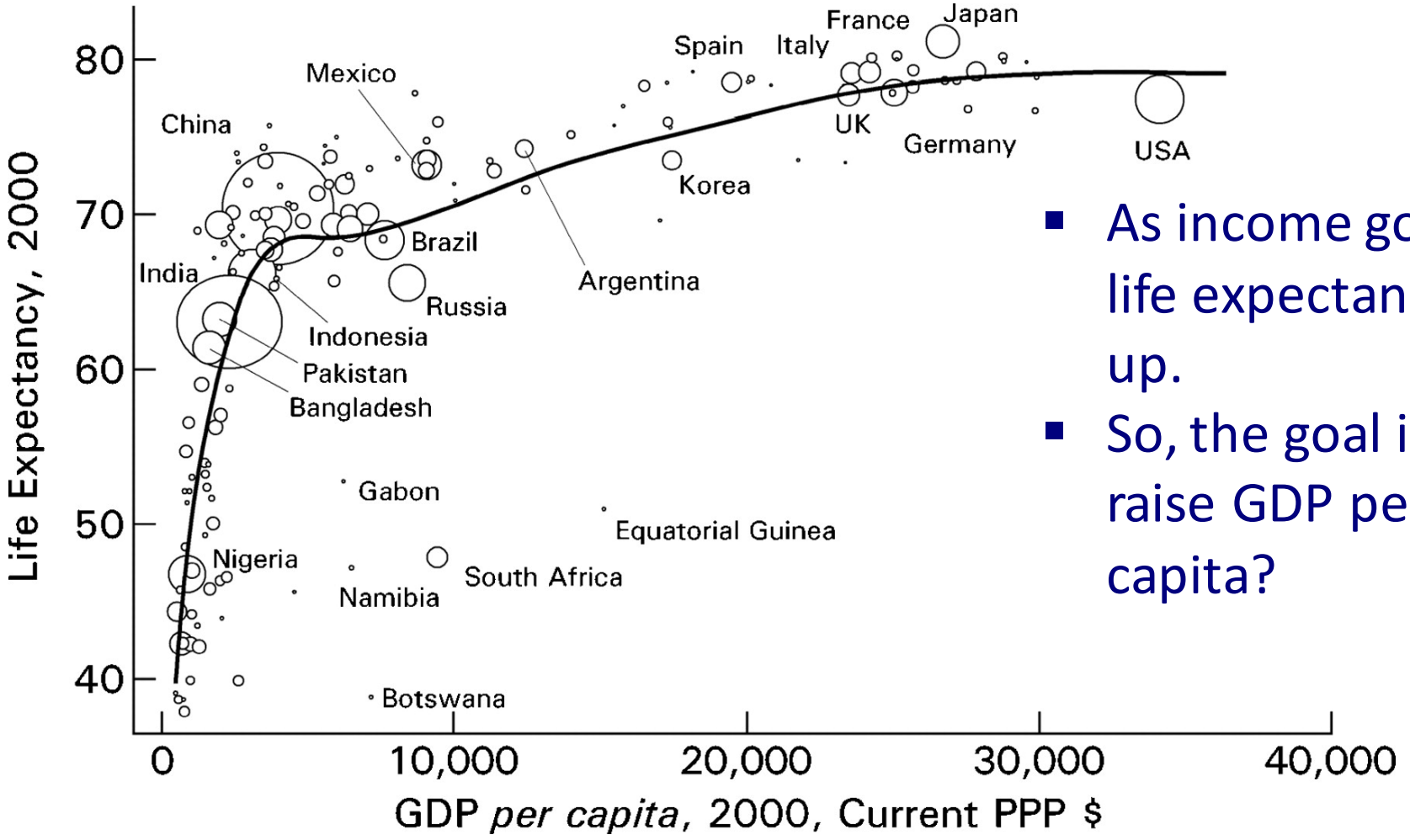
  = Economic growth

  - A secondary theme of this course.

- The study of individual and household behavior undertaken to achieve whatever goals the household and individuals value.
  - Material wellbeing.
  - The absence of uncertainty.
  - Health, education.

- An empirical understanding of the lives of the poor achieved using systematic data analysis.

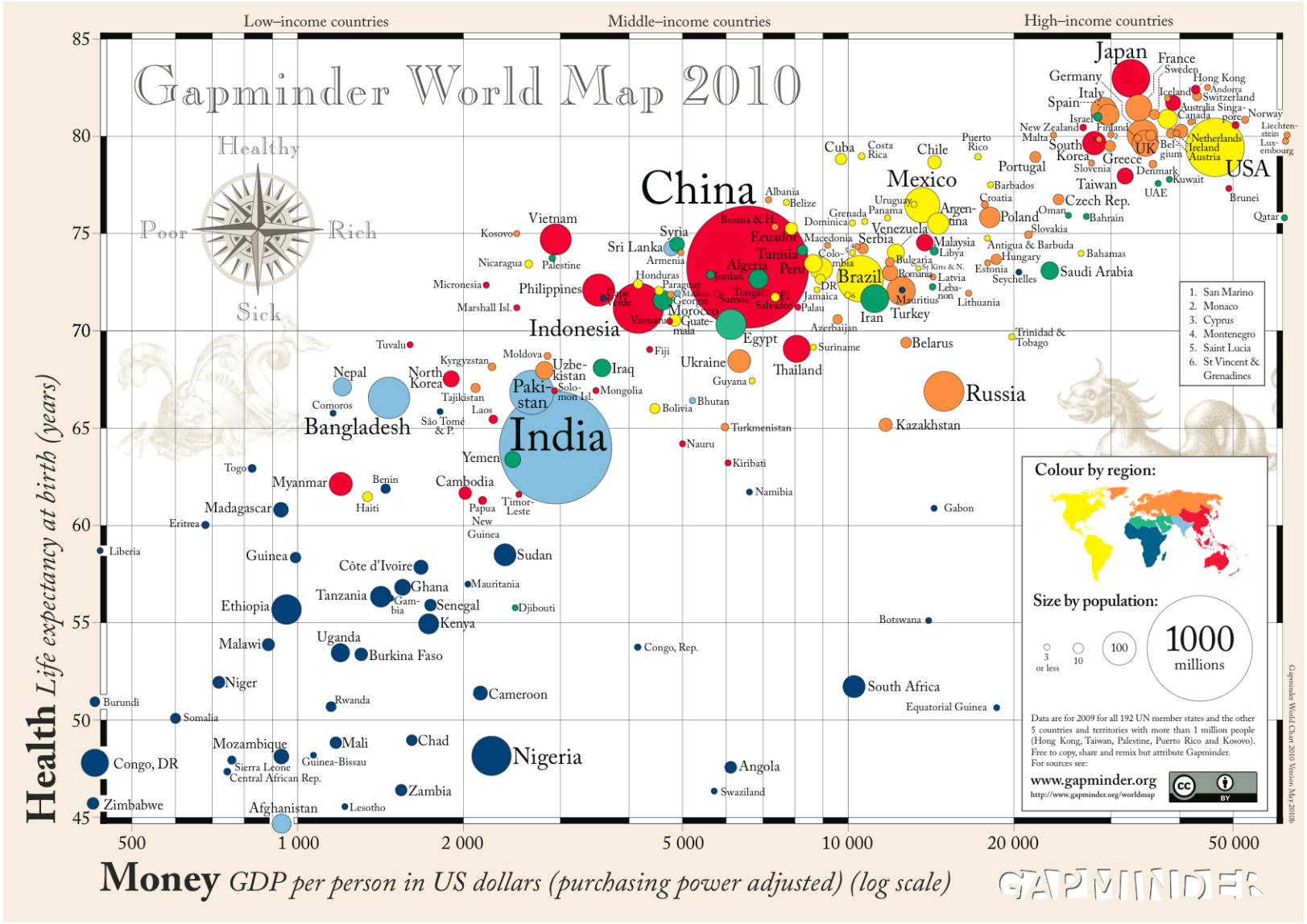
Is this development?



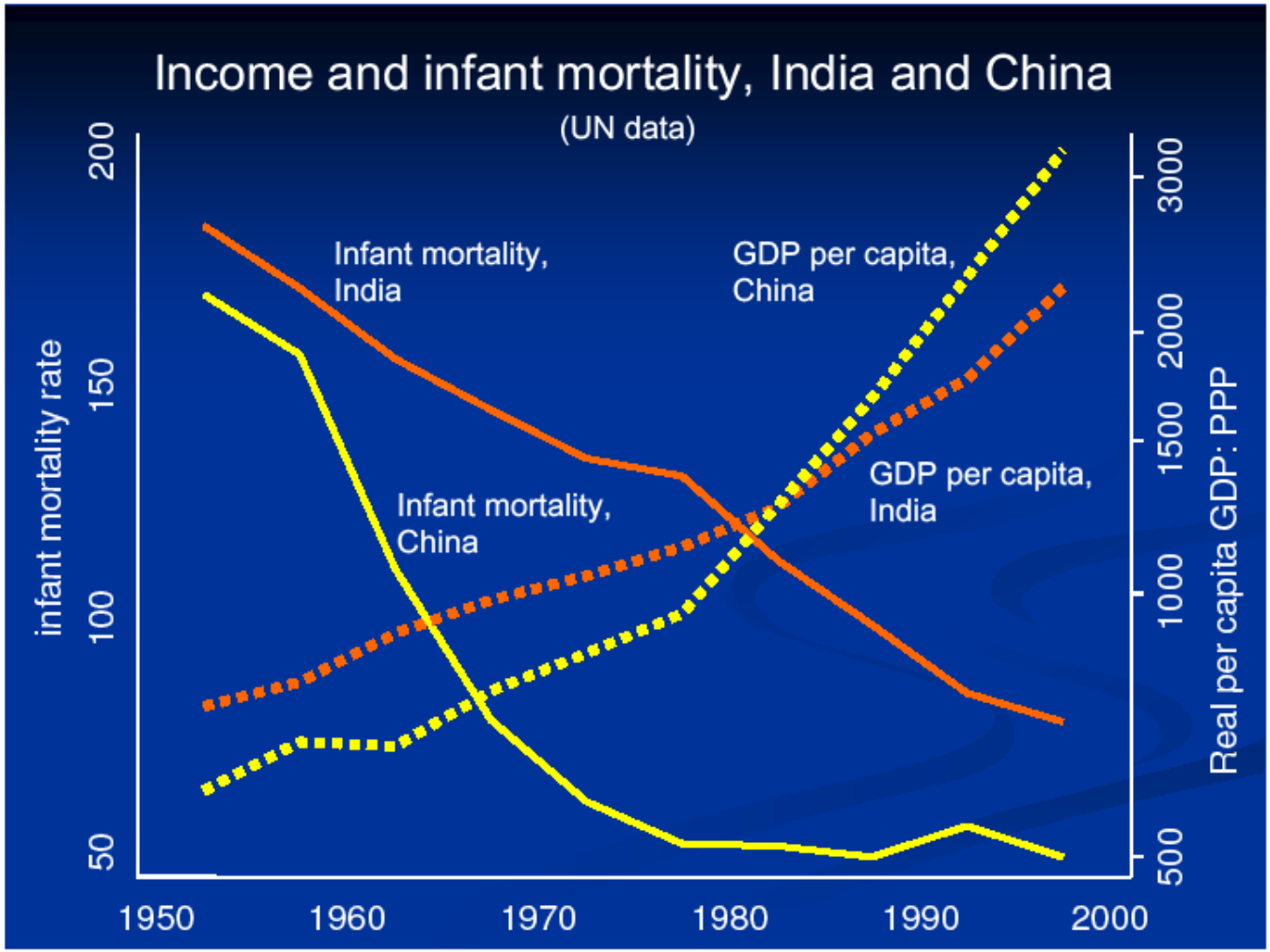
- As income goes up, life expectance goes up.
- So, the goal is to raise GDP per capita?

Angus Deaton 2003. "Inequality, and Economic Development." *Journal of Economic Literature* 41:113–158

Is this development?



Perhaps not: causation or a third factor?

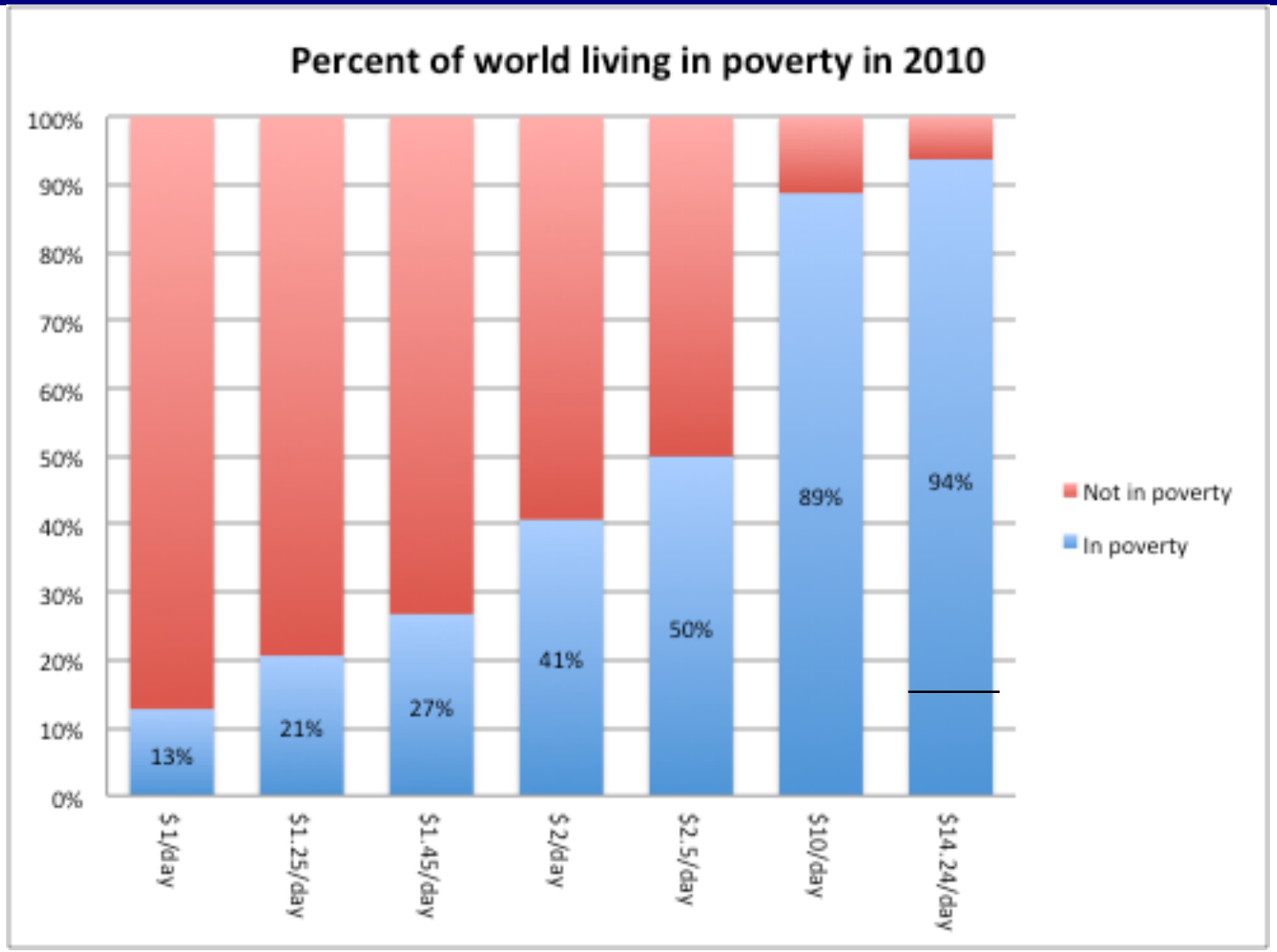


- So raise GDP or improve something else, e.g., governance?
- A recurring theme.

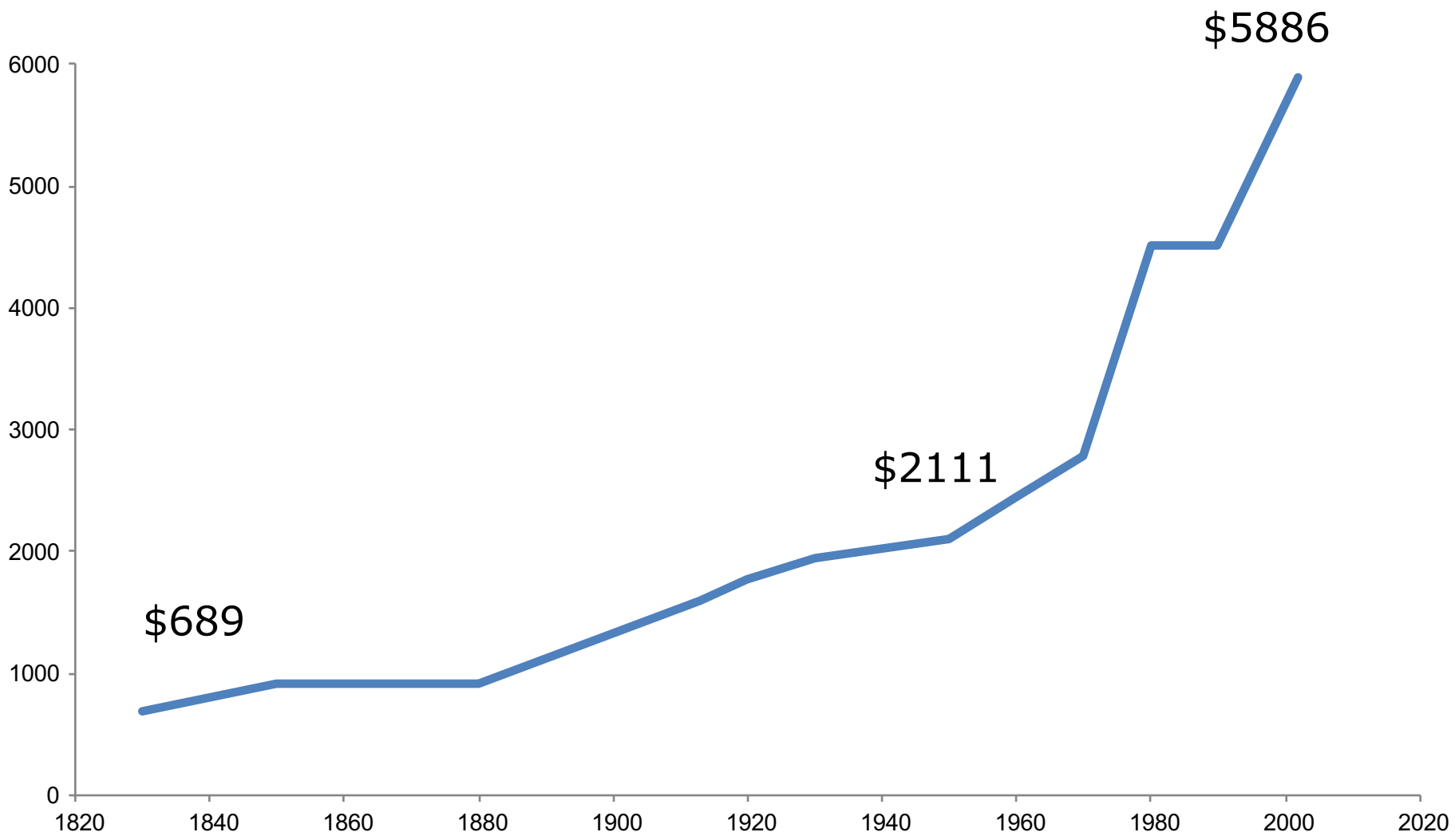
Starting points: basic facts

- There is vast poverty in the world.
- World is getting:
  - More populous
  - Richer in total
  - More unequal
  - Less poor in an absolute sense

2.4 billion people live on $2 a day or less

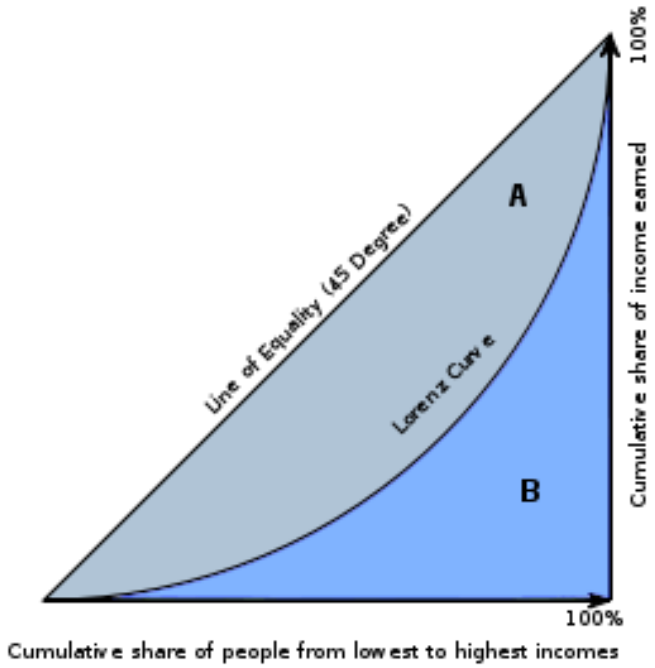


Global Average GDP Per Capita
2002, $PPP



Moving average of data presented in Table 3 of Branko Milanovic, "Global Inequality and the Global Inequality Extraction Ratio: The Story of the Past Two Centuries", World Bank Policy Research Working Paper 5044, September 2009

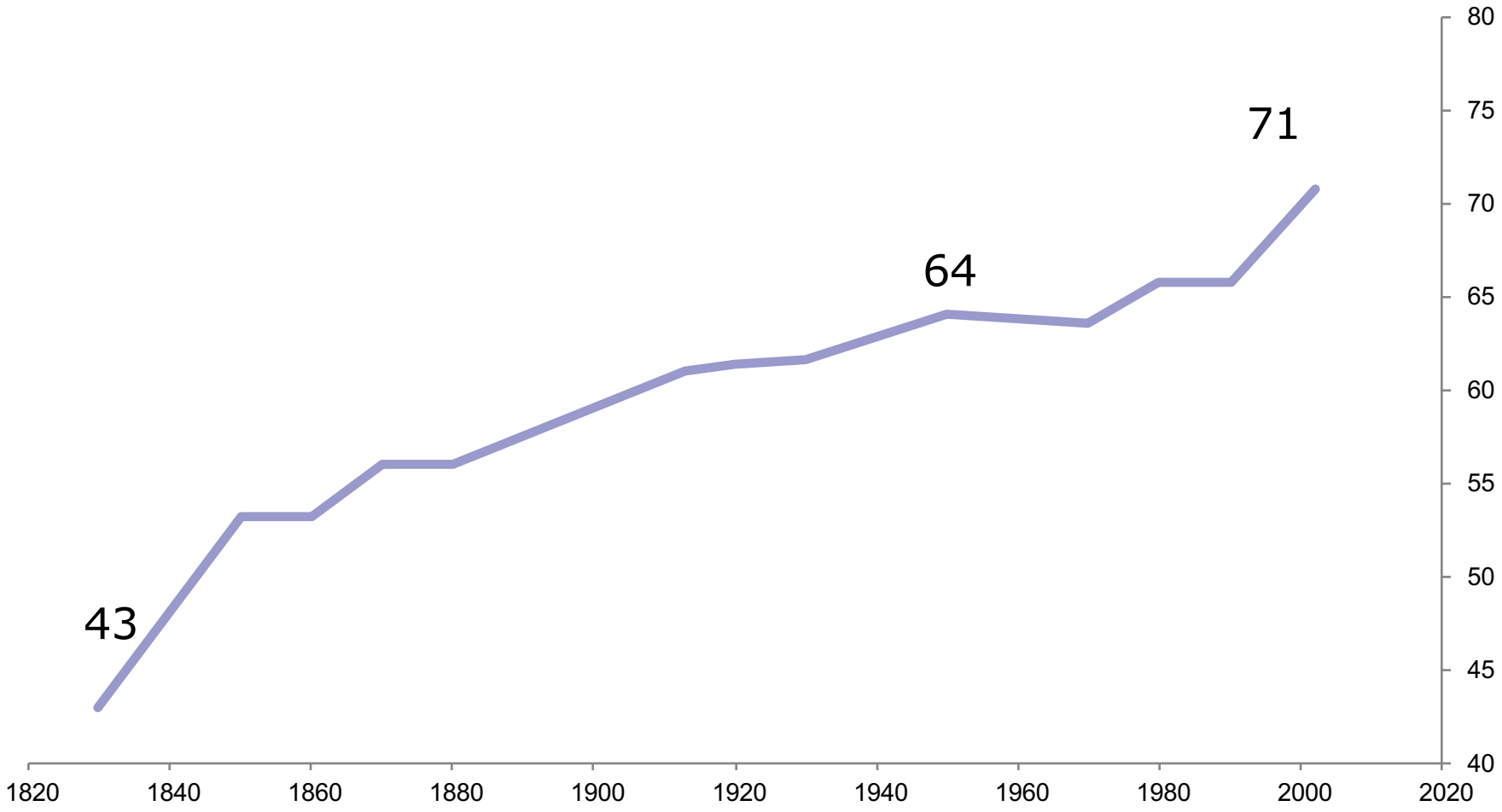
Quick aside: the Gini coefficient



- First the Lorenz curve: percentage of income command by poorest *x*% of the population.
- Gini coefficient is A/(A+B).
  - 0=perfect equality
  - 1=perfect inequality.

Growing global inequality

Gini coefficient



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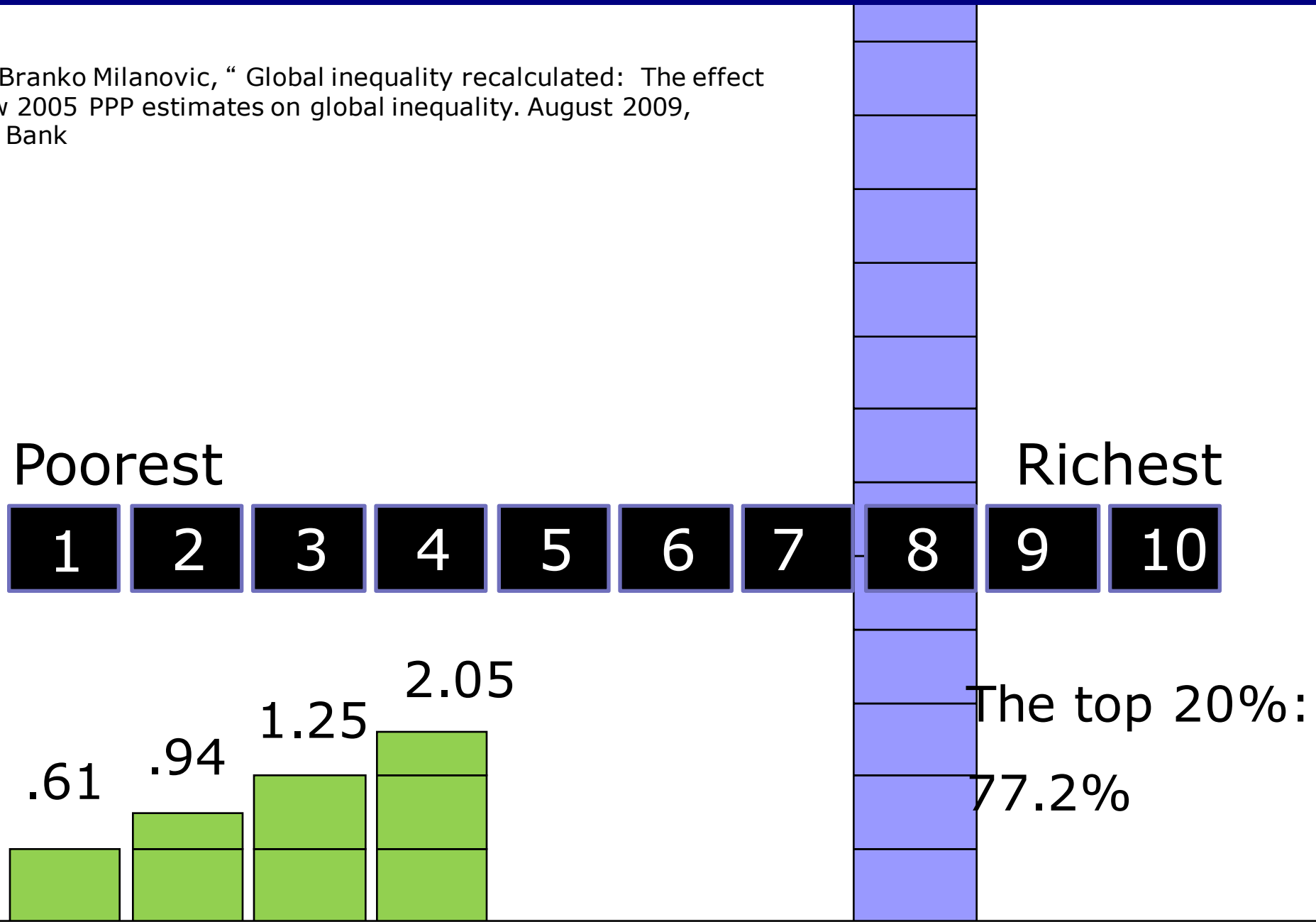
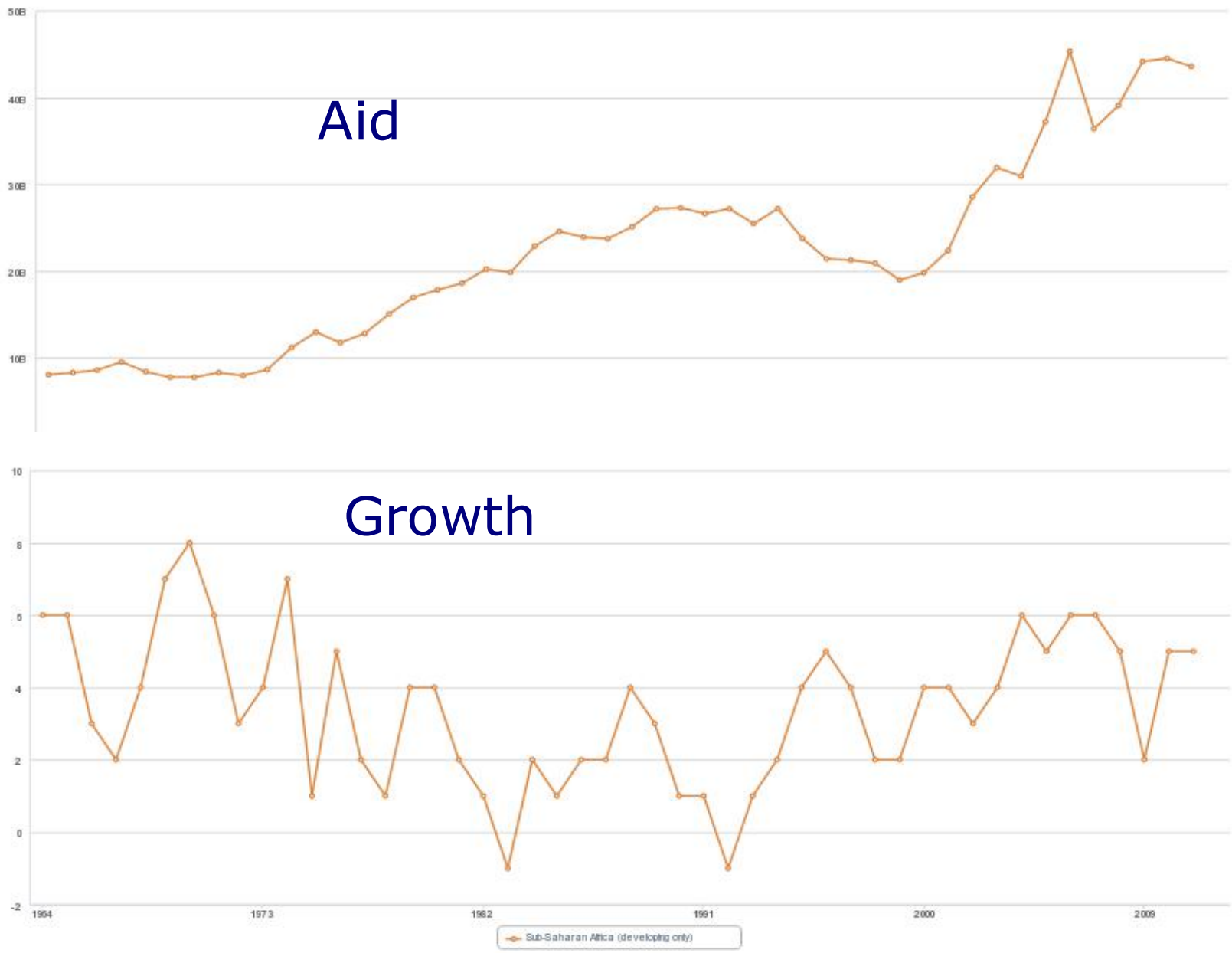
Global income inequality

By decile, 2002 ($PPP)

From Branko Milanovic, " Global inequality recalculated: The effect of new 2005 PPP estimates on global inequality. August 2009, World Bank



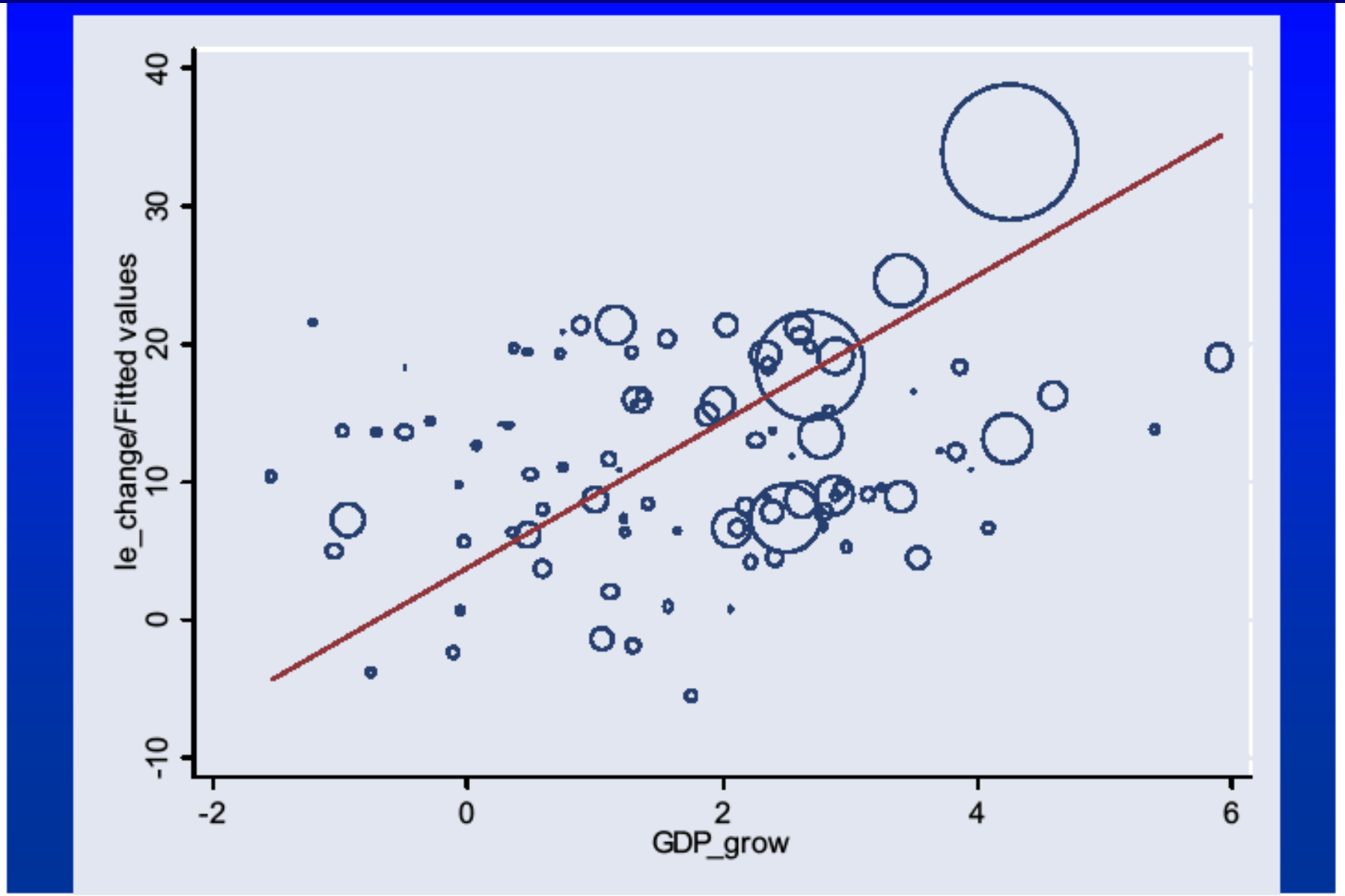
Sub-Saharan Africa: the growth tragedy



Can growth bring social improvement?

- Adam Smith: optimism
- David Ricardo, Karl Marx: pessimism
- Development economics: ambivalence

An if…suppose this is causal



Growth and Poverty Across the Globe, 1990–2015

Besley and Burgess, *JEP* 2003, Table 2

	Whole Sample	E. Asia and Pacific	E. Europe and C. Asia	L. America and Cari-bean	Middle East and North Africa	South Asia	Sub-Saharan Africa
Elasticity of poverty with respect to Income per capita	-.73	-1.00	-1.14	-.73	-.72	-.59	-.49
Annual growth rate needed to halve world poverty by 2015	3.8%	2.7%	2.4%	3.8%	3.8%	4.7%	5.6%
Historical growth 1960-90	1.7%	3.3%	2.0%	1.3%	4.3%	1.9%	0.2%
Total growth needed to halve world poverty by 2015	95%	70%	61%	94%	95%	117%	141%

A big if

What then causes growth?

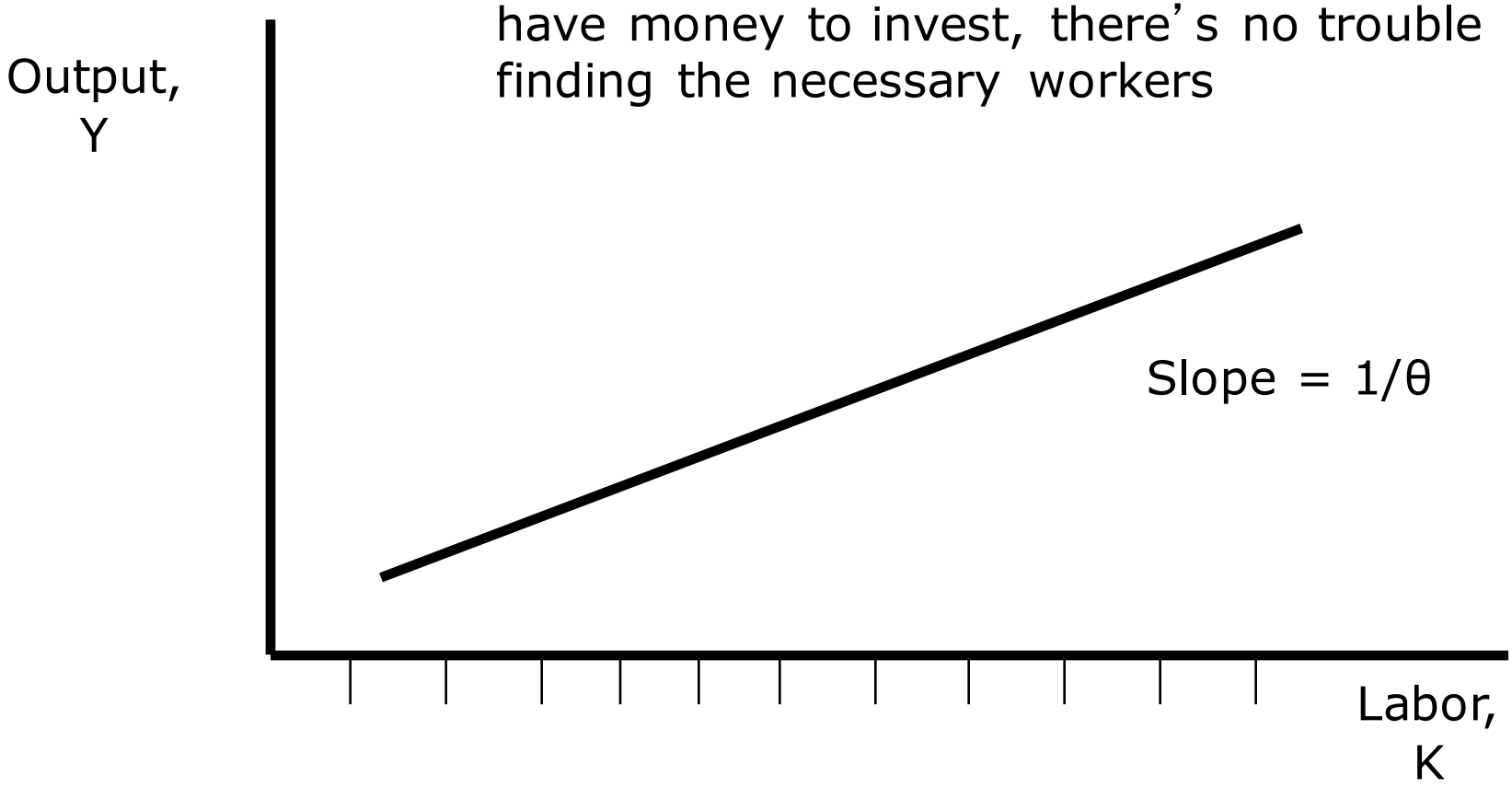
- A whole set of ideas known broadly as "growth theory".
- Two key ideas:
  - Capital = productive capacity.
  - Savings = capital increase tomorrow.

Early growth model: Harrod-Domar

- Abundant labor means that labor is not a constraint. The critical input is capital (K).
- Output, Y, is assumed to grow proportionately to increases in capital:
- $Y = 1/\theta * K$
- θ is the (incremental) capital-output ratio (ICOR).
  - θ generally assumed to be 2 – 5.
  - Lower means more productive.

Capital and output

Assumes that labor is abundant, so if you have money to invest, there's no trouble finding the necessary workers



The classic development model continued

- It's assumed that all saving (or foreign aid) is invested.
- Saving occurs as a fraction of income:
  - dK = change in capital, or investment, each year = sY
  - *s* = dK/Y
- Economic growth, G = dY/Y
  - dY = change in national income each year
    - Since Y = 1/θ K, then dY = 1/θ dK
    - G = dY/Y
    - G = [1/θ * dK]/Y
    - G = dK/Y / θ
    - G = *s* / θ
- Why there was emphasis on getting poor countries to save (supplemented by aid).

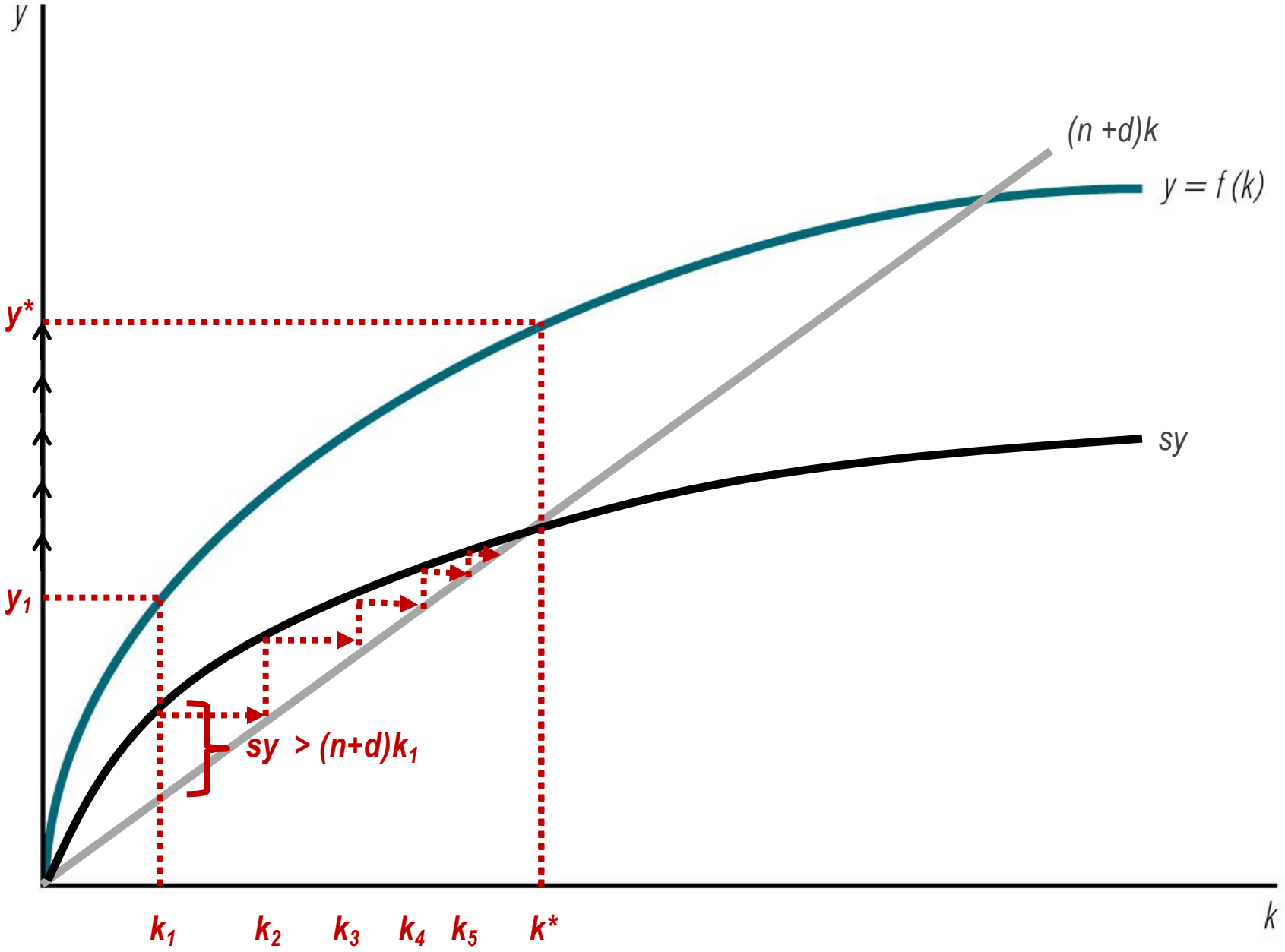
Implications of Harrod-Domar

- Capital = growth. So how do you get it?
- Increase savings.
- Foreign aid supplements domestic savings.
- Two key planks of traditional growth thinking.
- But says nothing about per capita growth: labor is left out of the model!

A more sophisticated theory: Solow growth model

- Suppose production involves both labor and capital, e.g., Y=f(L,K)=L*K
- How do you accumulate capital? By not consuming.
  - K(t+1)=K(t)*(1-d)+sY(t)
  - d=depreciation, e.g., 20%,
  - s=savings, e.g., 1%
  - Also assume fixed population growth, e.g., 5%

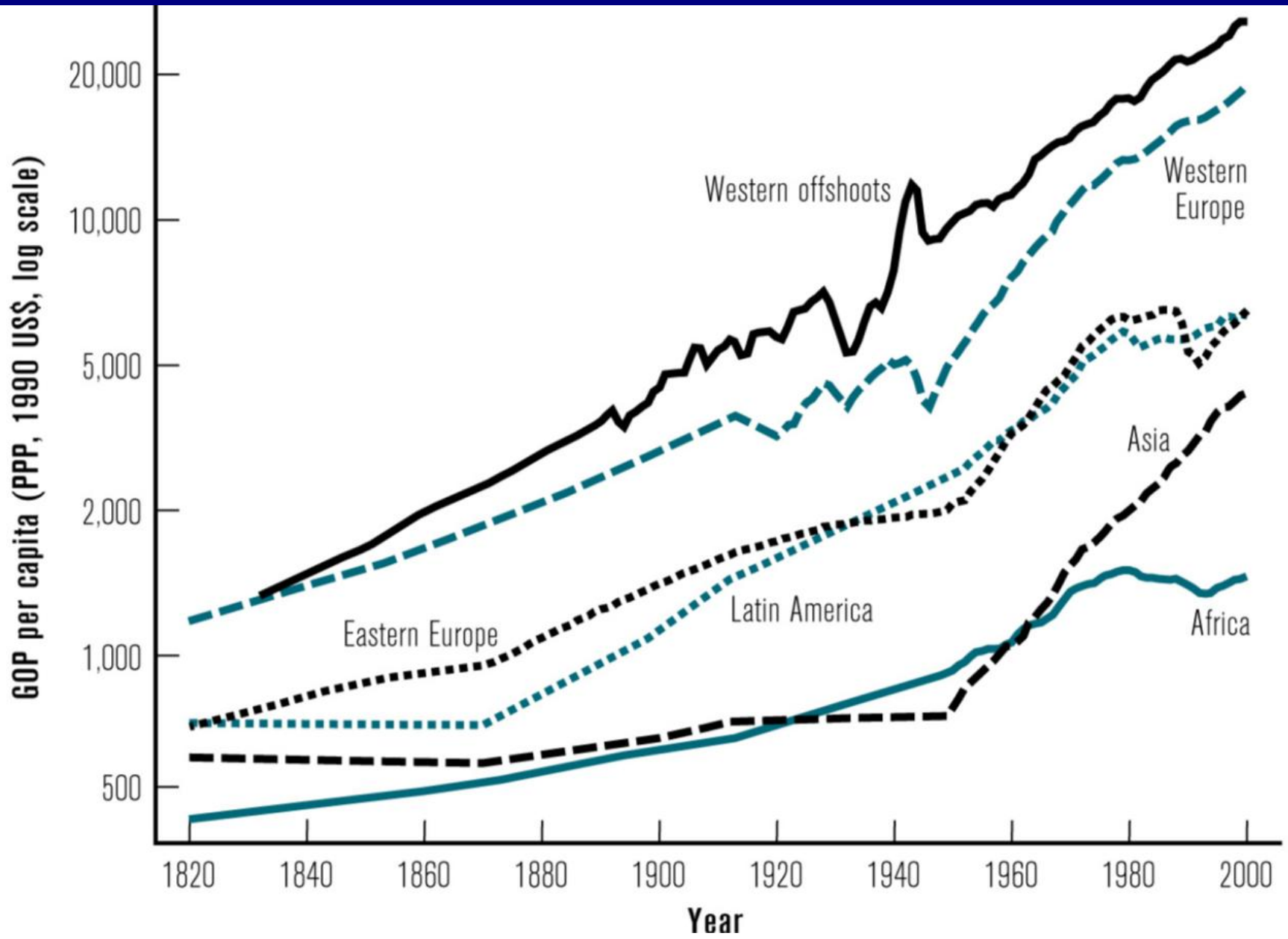
What if a country starts out with low capital per person?



Implications

- A steady-state level of GDP pc to which all countries converge.
- It just takes time…
- To speed it up:
  - Again, K (= aid).
  - Also raise s, lower n.
  - Also technology.

Problem: many poor countries are not converging



What could explain divergence?

1. Poor countries have lower steady states
2. Something is missing from the Solow model
3. We need a completely different model

Missing from the model:
Total factor productivity (TFP)

- "Technology" is shorthand for things that affect productivity
  - New products and techniques
  - Systems of organization and management
  - Rules, norms, and laws
  - Culture and work ethic
- Often represented by parameter A

We will see:

- More technology → higher income levels
- More technological growth → higher income growth

Productivity growth

Innovation

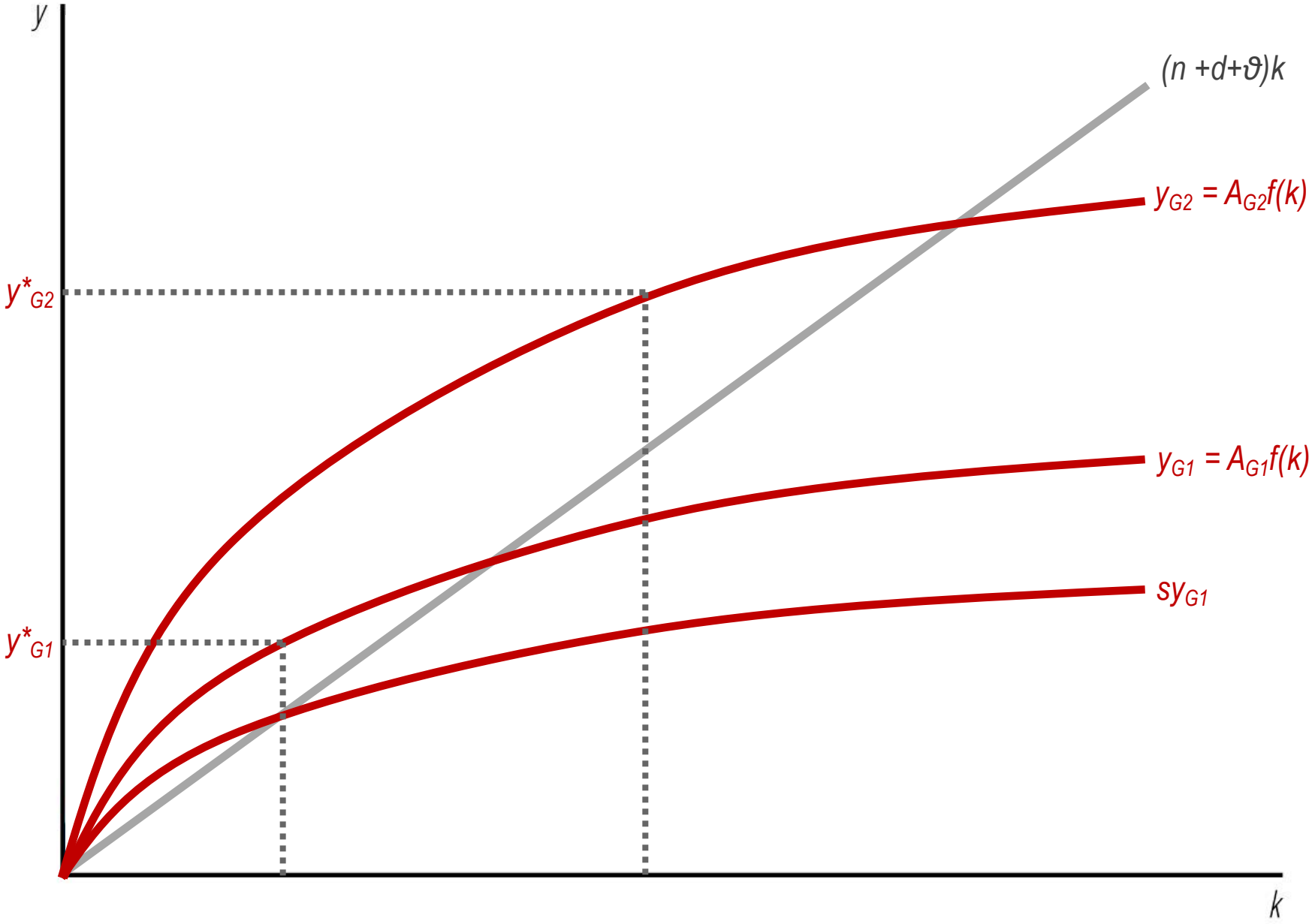
- New inventions
  - New products
  - New inputs
  - New production techniques
- New systems of organization
  - Scientific management
  - Quality control
  - Supply chain optimization
- New norms and laws
  - Limited liability corporations
  - Enforceable contracts
  - Intellectual property

Diffusion

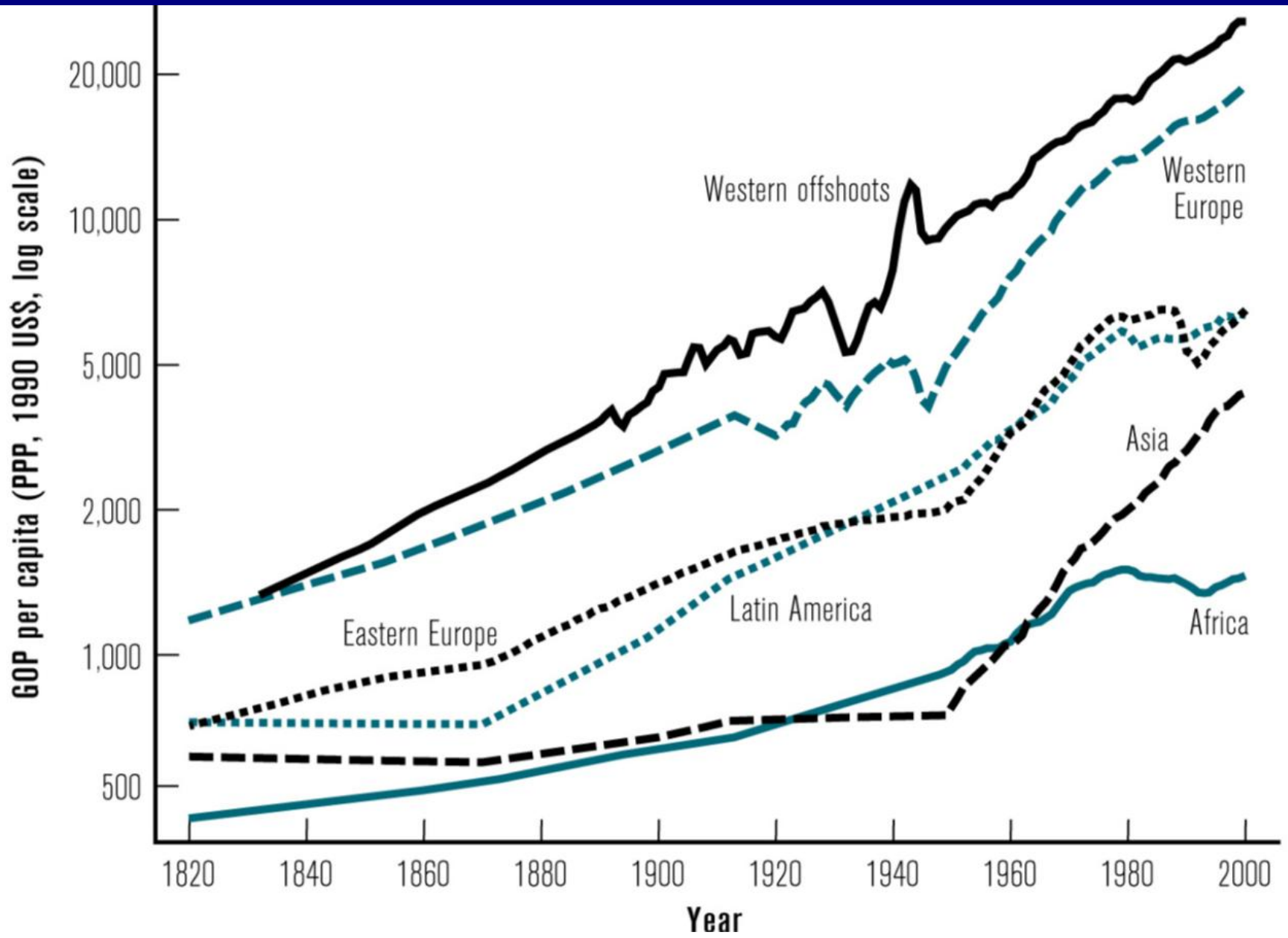
- Spread of inventions
- Adapt to local conditions

- Knowledge is a public good

What if technology and productivity grows at rate θ?



Productivity, not factor accumulation, explains large and accelerating growth rates



Arc of this course

- We start with “big” (macro) questions
  - Foreign Aid
  - Poverty, inequality, and economic growth
- Then survey key “small” (micro) questions
  - Coping with risk. Safety net
  - Informal markets: Access to finance
  - Microfinance: a new policy paradigm?
  - Saving and asset-building
  - Child labor: (good) bad or ugly?
  - Gender and the intra-household allocation of resources
  - Fertility and population growth: the more the merrier?
- And then swing back to some big questions
  - Why has development been such a slow process?
  - Education: Returns? Quality?
  - Corruption: Improving accountability and effectiveness