International Studies & AAE 374
Growth and Development of Nations

Lecture 1
3 September 2009

I. Introduction to the Course

A. *Welcome*
1. Introduction of teaching team: Profs. Brad Barham & John Morrow, and TA Dylan Fitz.

B. *Distribution in the Global Economy as seen through the stories of Nthabiseng, Pieter and Sven (NPS)*

C. Who we are:
1. Brad, John and Dylan backgrounds
2. Student Backgrounds –Interview each other:
   a. Most striking thing about NPS story.
   b. Find out what global economy issues interest your partner.
   c. Major—Econ background?

D. Basic goals of course:
1. Explore the growth and distribution of income in the contemporary global economy: Why the gaps in wealth and incomes of nations in the world and even within countries are so large and particularly what roles trade, technology, inequality, and institutions play in shaping these outcomes;
2. Use computers, datasets of major economic indicators from the world's nations, and problem sets to examine these questions so that your understanding grows through some hands-on experiences with the data and your statistical analysis and spreadsheet skills are sharpened;
3. Encourage you to be an active participant in class and as a citizen in discussions about current and future directions of the global economy. Do so by helping you develop ways of thinking about forces driving growth and development as well as a deeper knowledge about trends and issues in the evolution of the global economy in recent decades and centuries.

E. First Assignment DUE NEXT Thursday will get us started …
1. Rosenberg piece on web page entitled "The Free Trade Fix"
2. Reaction paper guidelines on web but handed out today.
3. Be ready to talk about the article next Thursday (10 September)

F. Basic goals for today:
- Set the stage for the issues at hand by taking a first look at the data on the evolution of standards of living and the distribution of income in the world;

- Provide some idea about why we focus on trade, technology, inequality, and institutions as key themes of the discussion.

- Make clear what skills and/or intention you need coming into the class and what to expect in terms of challenges.

- Go over the syllabus and class logistics so that you know what the course will demand of you.

II. Standard of Living (Development) in the World since 1800

A. Most of the rest of the semester we will talk about causes of and differences in growth and development of nations in the present and not so distant past. But first, why do we care about growth or changes in standard of living ("development")? Way to represent how people are progressing. Second, how are they measured?
   1. Monetary/Material (often measured by per-capita GDP)
   2. Health
   3. Education
   4. Human Rights/Democracy
   5. Happiness?

B. Measurement changes
   1. In the 40's and 50's standard of living was generally measured by GDP.
   2. Critics realized there were other aspects of standard of living and wanted to avoid focus on only economic growth.
   3. Recently United Nations has created Human Development Index (HDI) which combines monetary, health, and education aspects.
   4. Critique again: ad hoc weighting issues, what to include, double counting
   5. Here we will look at each piece of the standard of living separately, talking about all pieces (except Democracy above), but focusing mostly on the first.

C. History of Growth
   1. Maddison – looks at GDP per capita over time (0 to 2000).
   2. First do analysis from year 0 to 2000 (see figure calculated from Maddison at the end of this document.
   3. Growth as we know it is recent phenomenon. Centuries of stagnation and then huge takeoff in past 200 years.
      a. From this perspective regions look pretty similar, all take off at around same time and all experience lots of growth thereafter.
      b. Now do analysis from 1800 to 2000 (see figure calculated from Maddison at the end of this document).
      c. See massive improvements made by US and Western Europe and recent catch-up by Asia and Latin America. Africa left behind.

d. This figure shows much more differentiation between regions. Shows much more inequality.

4. Easterlin reading – focuses on turning points in GDP, health, and education (1800 to 2000).
   a. Growth rates.
   b. Growth rates are much higher after turning point
   c. Turning point comes later in time and at lower income level for LDC's (less developed countries) or later developers.
   d. After turning point in LDC's rate of improvement was greater (though they do start from lower income).
      (a) Most of Africa hasn't reached turning point.
      (b) Growth rates seem similar but small differences are important with compounding. At 1.7% growth each year doubling income takes 40 years. At 0.1% growth each year doubling income would take 400 years!

   e. Material quality of life.
      (a) 200 years ago life was like "camping out". 1 or 2 rooms, fire for heat, candle for light, horse for transport, latrine outside, dirt floor.
      (b) Now we have homes, refrigerator, car, blender, computer, airplanes.
      (c) In Japan 1% of households had a car in 1958 and 60% had a car in 1987. Illustrates how rapid transformations can be. China and India have been undergoing a rapid transformation in past 30 and 10+ years, respectively.

   f. Health (here measured by life expectancy)
      (a) Before turning point in 50 years life expectancy grew by 3-8 years. After turning point in 50 years life expectancy grew by 41-68 years.
      (b) All developing areas (other than Sub-Saharan Africa) are catching up with the developed world. (This is different than the evidence on GDP.) Health improvements have spread more rapidly than economic improvements.
      (c) Fertility Rates (number of children each woman has)
         (i) Decline everywhere except Africa
         (ii) In LDCs from average of 6 kids per woman in 1950 to 3 kids per woman in 1990.
         (iii) Huge reduction in time women spend bearing and raising children and gives them more time to spend on more productive endeavors.

   g. Education (here measured by adult literacy rates)
      (i) In developed world close to 100% literacy
      (ii) As with health the West started improvements first but others quick to catch up.
      (iii) Asia went from 24% to 72% literacy in a very short time.

D. Past 200 years have seen incredible unprecedented growth in living standards worldwide. Healthier people, living longer, with more education. Don't forget this through the rest of today's lecture and this class. We will be studying differences in growth rates and levels

of income and inequality, but don't lose sight of HUGE improvements which have taken place everywhere!

III. The Distribution of Living Standards in the Contemporary World

A. Just seen how indicators of how average living standards have evolved over time. Now we'll try to get a snapshot of the modern day (since the average age junior or senior started high school).
   1. Looking at poverty and inequality numbers, try to make sense of them.
   2. In development inequality has two major dimensions:
      a. Emphasis *across countries* (e.g. avg levels between South Africa and Sweden)
      b. Emphasis *within countries* (e.g. opportunities for rich vs poor, black vs white)
   3. Take a quick peak at the dynamics of these kinds of inequality into the present day

Let's look at some indicators of the distribution of well-being, starting first with a basic indicator, infant mortality…

B. *Variation across Countries (DHS)*
   1. Orange line infant mortality – Latin America low on left, Africa high on right
   2. Lower Income Countries compare to averages in Upper-income Countries for calibration: US 6.3, Ger 4.03, Rus 10.8
   3. Some surprises we would like to explain e.g. Sri Lanka at 32 vs India, Nepal, Bangladesh in 70-80 range

C. *Variation within Countries*
   1. Mortality rates for education levels low/high – why might we see this? (Income)
   2. "Width" of bars highly variable: Secondary ed in India close to Sri Lanka
   3. Any hypotheses for cross country variation for Sri Lanka vs India?
   4. So within country variation can help explain cross country variation (and vice versa in principle)
   5. But India bar is really wide – better to be poor in India or Sri Lanka? Where might we say within variation is higher?

D. Income Ranges (WDR Pix)
   1. Again cross country and within country, monthly incomes
   2. Cross country
      a. Income range: 10^{th} percentile, 90^{th} percentile (box in a moment)
      b. Rural/Urban distinction like countries
   3. Within country

a. median (50th percentile), mean, gap is a sort of inequality measure (average joe vs average income)
b. mean always higher than median (e.g. 2/3 of people have less than average income – source of friction) what does this imply politically?
c. Argentina vs Brazil (same mean, spread), Ireland vs Denmark (same mean, different spread – why?)

E. Global Snapshot (modified Ray picture)
1. Make some sense of this. First countries sorted (jagged) what are three highest spikes?
2. Dashed line is per capita income for each country.
3. Who are the haves and have nots? How unequal? 40000 US / 4000 China

F. Global Income dynamics (WDR)
1. Many ways to measure inequality, this is one (see Weil Chap. 1)
2. Global trend, i.e. between (across) country + within-country increasing
3. Within starts high (landlords & serfs), between low (example from someone, e.g. not NASA vs hand looms)
4. Cross about 1930, between becomes dominant: rich country "landlords" and poor country "serfs"
5. Explains inequality, not levels, e.g. cell phones in rural India

G. Global Poverty Dynamics
1. Define Headcount Poverty Measures as another way to look at bottom end of the distribution
2. Most recent (globally figures)
a. $1/day figures
(a) Percentages: which regions are poorest
(b) Numbers: where to focus to alleviate worldwide poverty
(c) Big picture: percentage of globe?
b. Maybe $1 is just the "super poor" – what about $2/day figures
c. (If time) Relative (national poverty line) measures
(a) Why would we want different measures for different countries? (e.g. $1 Super value menu)
(b) Anyone know what it is in US? (1 person 10,400, 4 people 21,200)
(c) Is that right for Madison? Minimum wage? (5.85*40*50=11700 Full employment, no illness, etc.)
3. (If surplus time) Regional headcount graphs
a. confusing, only look at Middle East, Europe and Latin Am for $1 and $2 measures
b. Then other three regions

H. Globalization and Contemporary Changes in Income Distribution—the Big Debate

1. So we have a sense now of where we are in terms of some broad trends in the global economy—but how did we get there and where are we going?

2. With the rapid decline in communications and transport costs, as well as the opening of markets, the world has experienced a strong expansion of international trade, foreign investment, international financial market integration, international migration, and all kinds of trade, investment, and intellectual property rights agreements to further ensure this opening. As such, the economies of the world are increasingly interlinked. The word "globalization" has been increasingly used to describe these trends, and as you probably know there is considerable controversy over the pros and cons of these trends.

3. Obviously complex—Next Tuesday we will explore more of your thoughts on how these key trends shape the well-being of people, especially the poor, around the world?

IV. The Course Project: Mix of Trade, Growth and Distribution Theory

A. The course will explore growth and income distribution in the contemporary global economy, with special emphasis on the roles of trade, technology, inherited inequality, and institutions in explaining distinct growth and distributional trajectories of nations within that economy.

B. *Trade-1:* Taking endowments and technology as given, explore standard comparative advantage free trade logic, its critiques and its political realities (outside speakers)

C. *Growth-1:* We the look at standard economic growth theory that emphasizes the accumulation of capital, labor and skills

D. *Technology:* Next we focus on technology as the source of long-term growth and its peculiar complexities

E. *Revisit How Trade and Growth Operate* in the light of the nature of technology

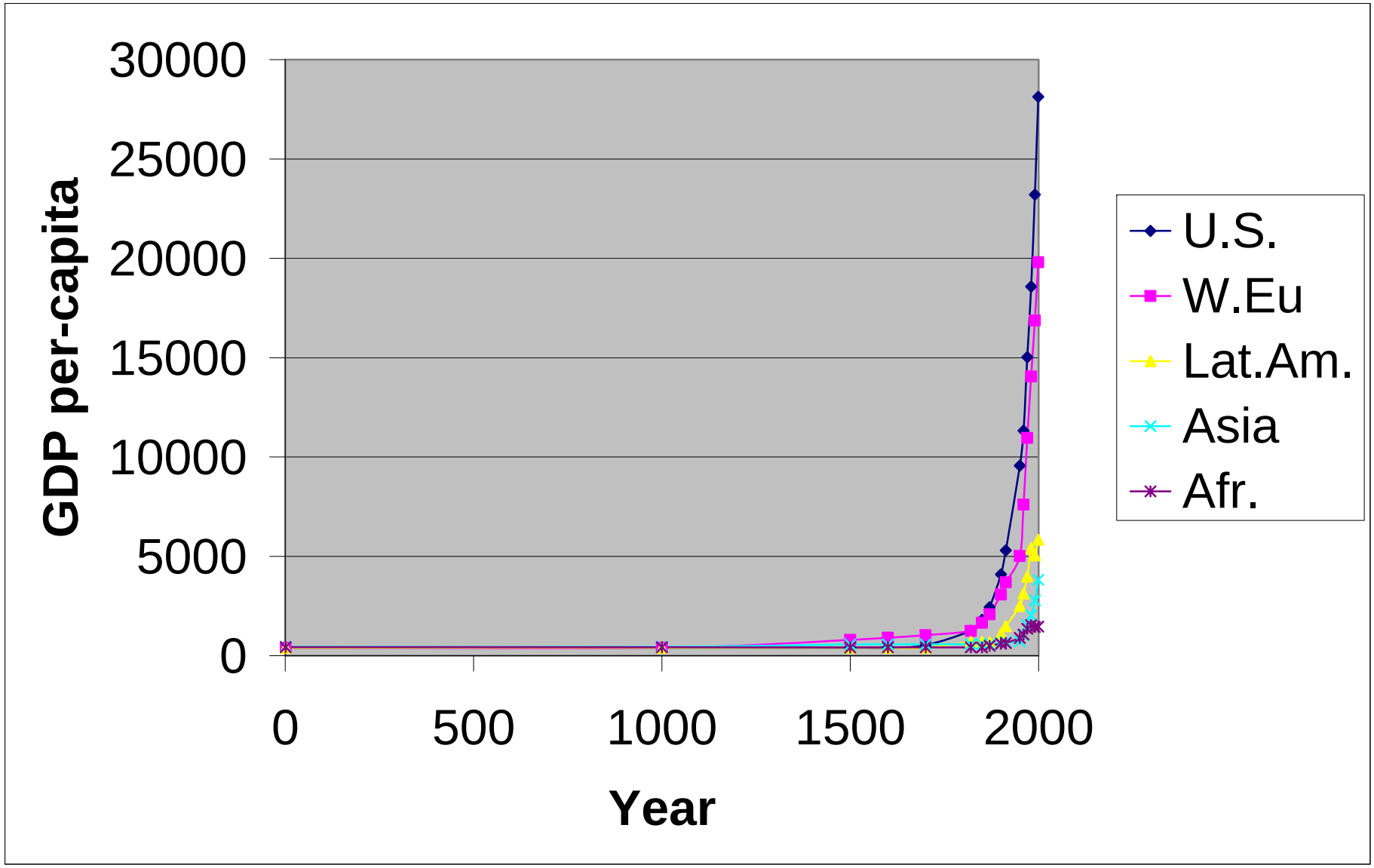
F. Domestic Inequality—who gets what within a country—is a key question of our time. We will look at the ways in which past inequality shapes growth and future inequality, as well as the ways globalization itself reshapes inequality

G. Institutions – Laws, norms, expectations, and governing structures that shape economic activity. Can be rule of law (no cheating), can be a social norm (not interrupting the professor), an expectation (grading will be fair and according to quality of work), and governing structures (departments and colleges where rules, norms, and expectations are discussed and enforced).

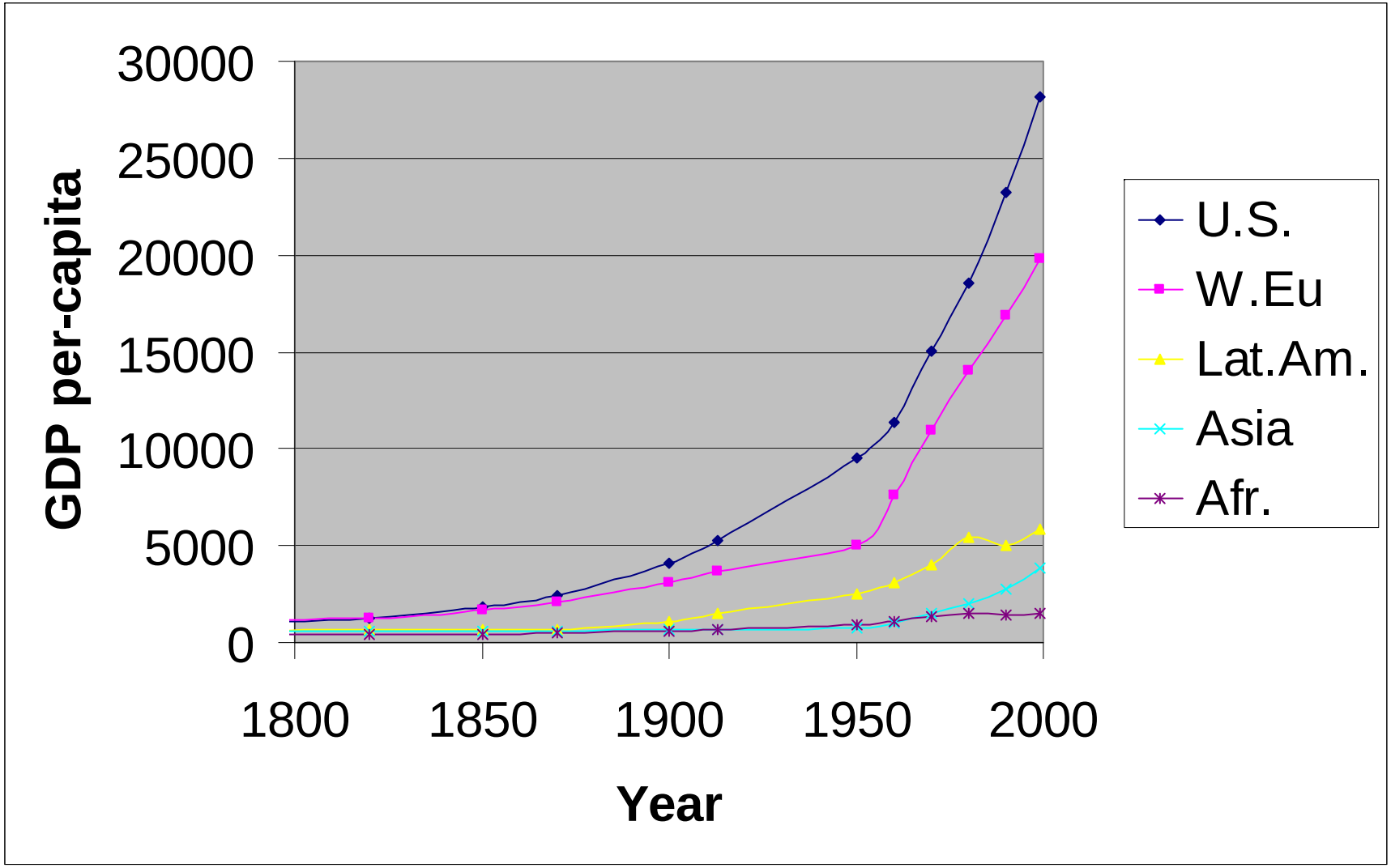
H. *Audience for Course*
   1. IR/Econ AAE
   2. Bit of Econ, willingness to push
   3. Not extensive math, but ….

I. First Assignment—See Handout

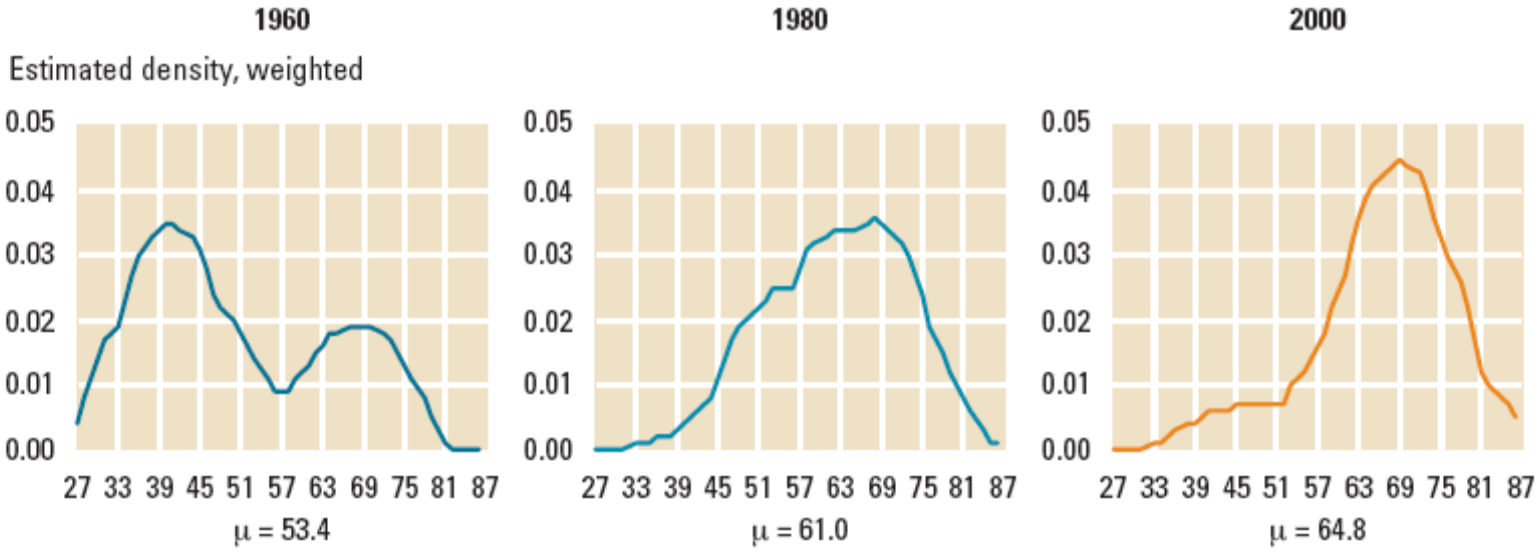
J. *Sections start next Friday 9/11*.


GDP per-capita
30000
25000
20000
15000
10000
5000
0
0
500
1000
1500
2000
Year
U.S.
W.Eu
Lat.Am.
Asia
Afr.

From Maddison: World Population, GDP and Per Capita GDP, 1-2001 AD

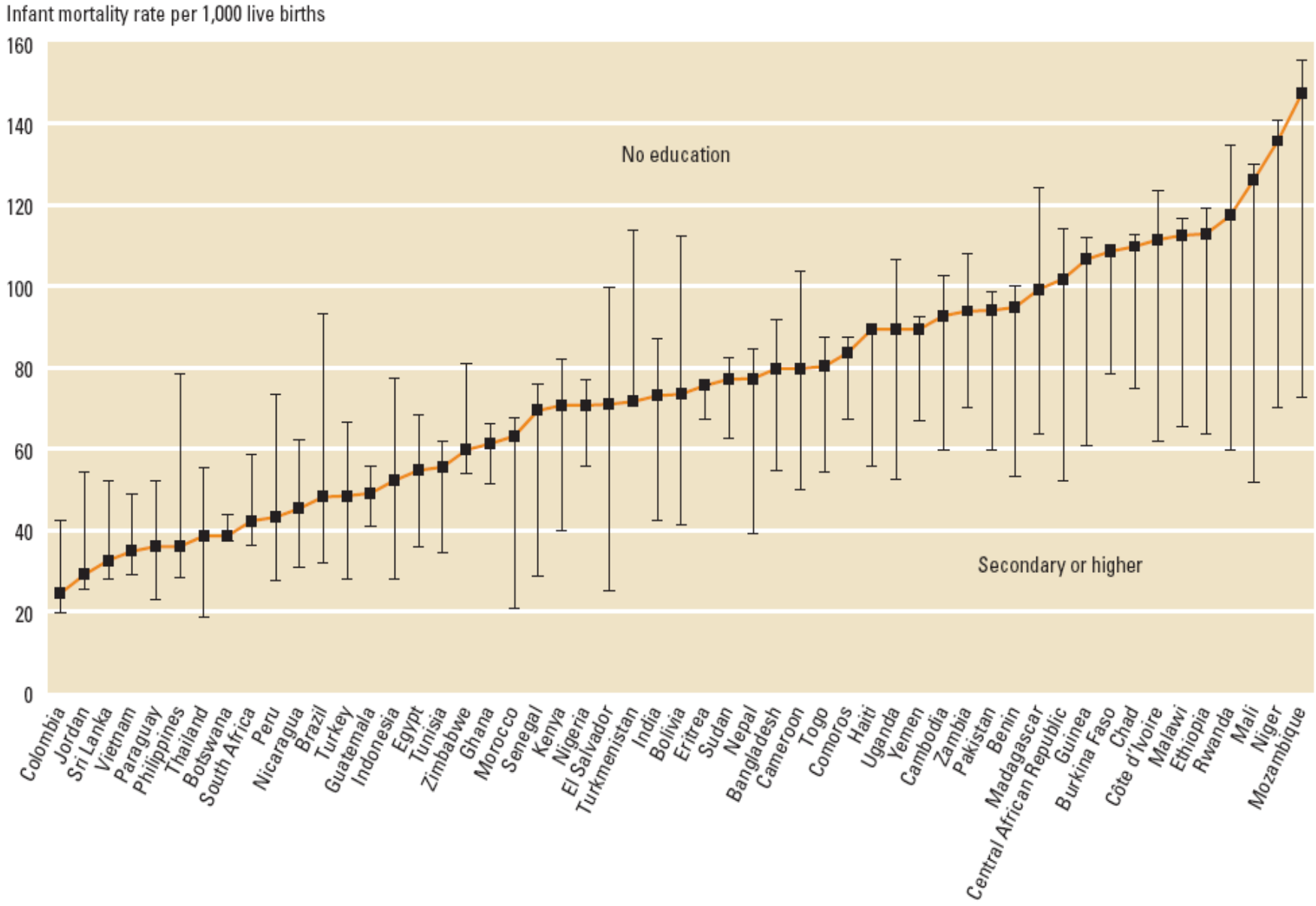


From Maddison: World Population, GDP and Per Capita GDP, 1-2001 AD



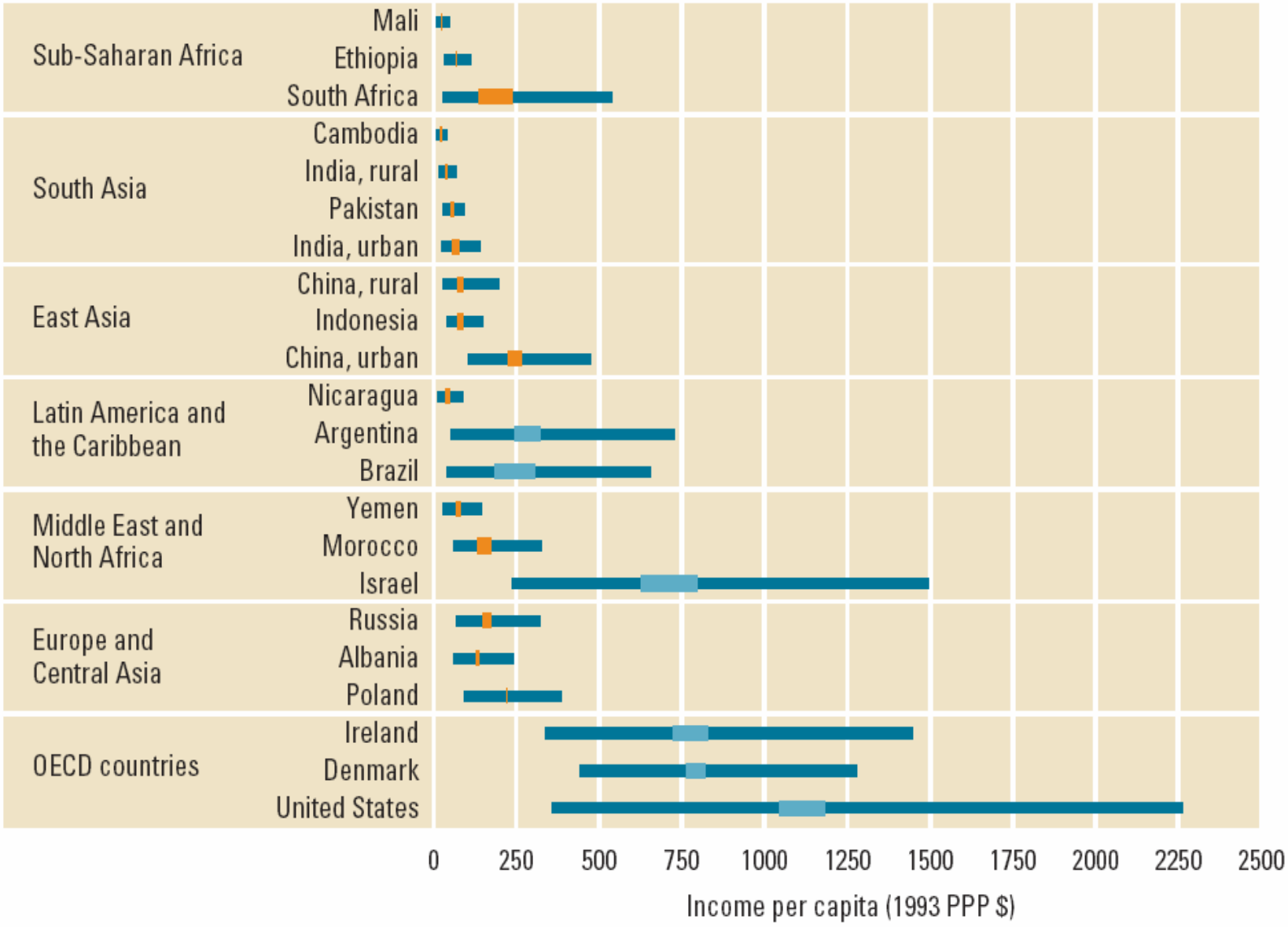
Source: Schady (2005).

Figure 2.1 Infant mortality varies across countries but also by mother's education within countries



Source: Authors' calculations from Demographic Health Survey (DHS) data.
Note: The continuous dark line represents the mean infant mortality rate in each country, while the endpoints of the whiskers indicate the infant mortality rates by different levels of mother's education.

Figure 3.6 Incomes range broadly across countries and individuals



Source: Authors' calculations.

Note: Years range from 1997 to 2002 as measured by adjusted (1993 PPP $) monthly per capita income (blue box) or consumption (orange box). The lowest point of each line represents the income level at the tenth percentile, followed by that at the median, the mean (the two edges of each box), and the ninetieth percentile (top of each line).

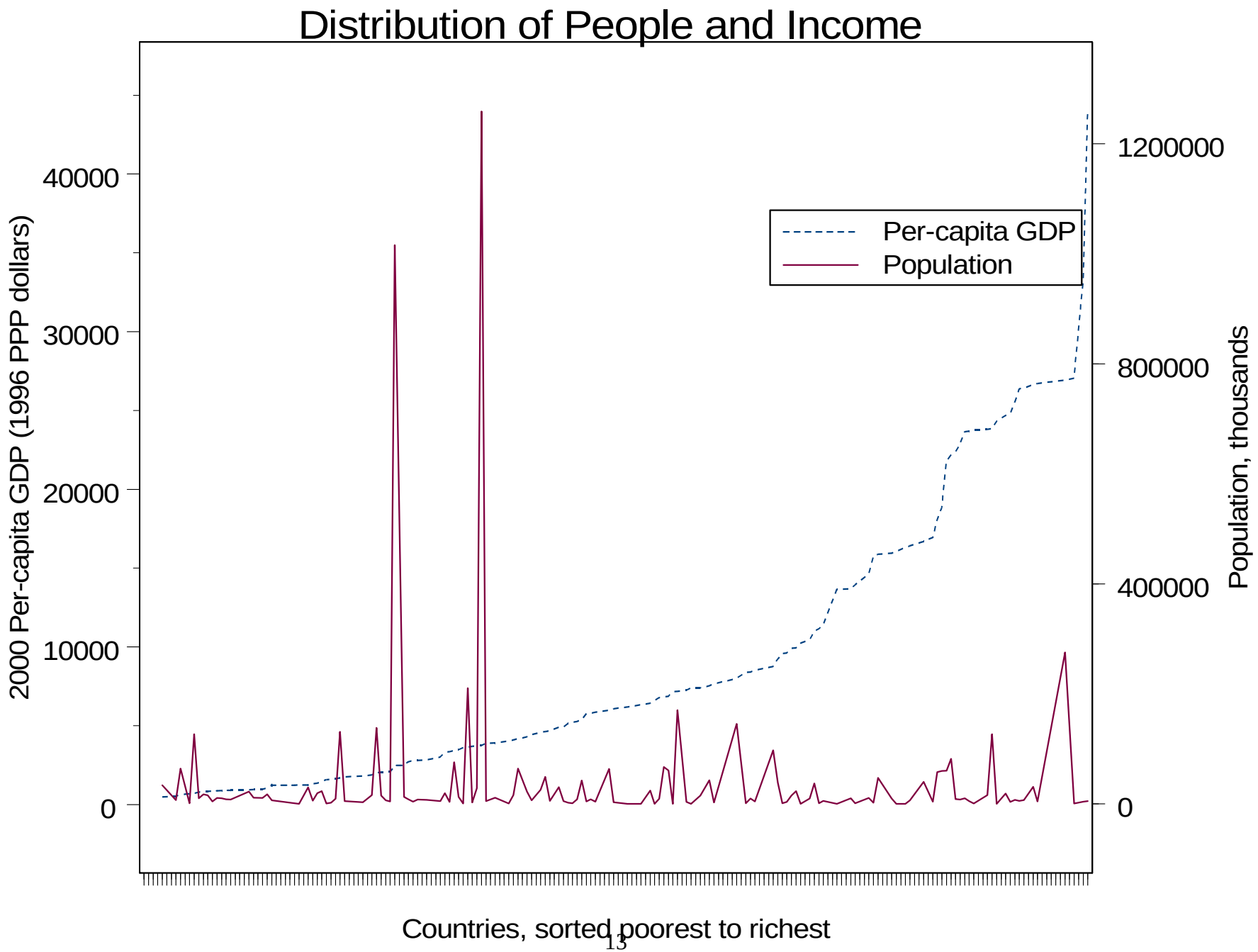
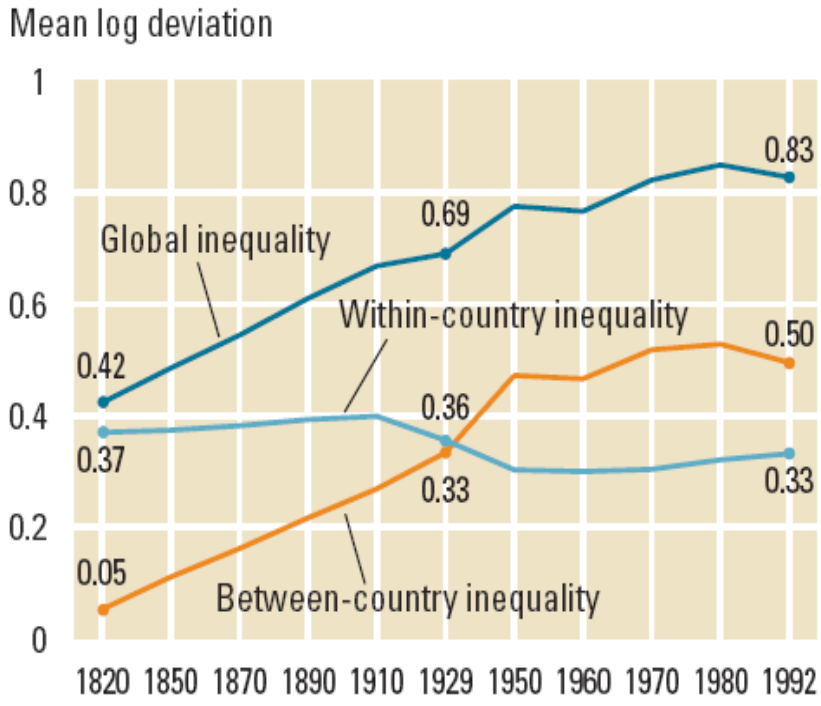

Distribution of People and Income
2000 Per-capita GDP (1996 PPP dollars)
0
10000
20000
30000
40000
Population, thousands
0
400000
800000
1200000
Per-capita GDP
Population
Countries, sorted poorest to richest

Figure 3.10 Inequality between countries became much more important over the long run



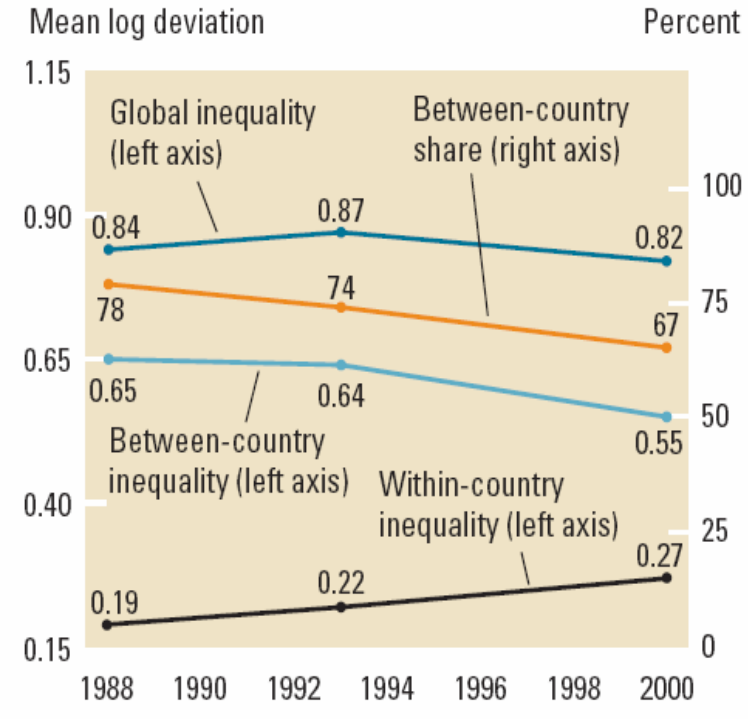


Table 2. Population living below $1.08 per day at 1993 PPP

Region	Headcount index (% living in households that consume less than the poverty line)					Number of poor (millions)				
	1987	1990	1993	1996	1998 (prelim.)	1987	1990	1993	1996	1998 (prelim.)
East Asia	26.60	27.58	25.24	14.93	15.32	417.53	452.45	431.91	265.13	278.32
(excluding China)	23.94	18.51	15.87	9.97	11.26	114.14	91.98	83.52	55.08	65.15
Eastern Europe & Central Asia	0.24	1.56	3.95	5.12	5.14	1.07	7.14	18.26	23.82	23.98
Latin America & Caribbean	15.33	16.80	15.31	15.63	15.57	63.66	73.76	70.79	75.99	78.16
Middle East & North Africa	4.30	2.39	1.93	1.83	1.95	9.31	5.66	4.95	5.01	5.55
South Asia	44.94	44.01	42.39	42.26	39.99	474.41	495.11	505.08	531.65	522.00
Sub-Saharan Africa	46.61	47.67	49.68	48.53	46.30	217.22	242.31	273.29	288.97	290.87
Total	28.31	28.95	28.15	24.53	23.96	1183.19	1276.41	1304.29	1190.58	1198.88
(excluding China)	28.51	28.05	27.72	27.01	26.18	879.81	915.94	955.89	980.53	985.71

Table 5. Relative poverty

Region	Mean poverty line ($/day, 1993 PPP)	Headcount index					Number of poor (millions)				
		1987	1990	1993	1996	1998 (prelim.)	1987	1990	1993	1996	1998 (prelim.)
East Asia	1.29	33.01	33.69	29.82	19.03	19.56	518.25	552.68	510.29	338.00	355.45
(excluding China)	1.92	45.06	38.68	30.76	23.16	24.55	214.86	192.21	161.89	127.95	142.03
Eastern Europe & Central Asia	2.71	7.54	16.19	25.34	26.08	25.60	34.35	74.29	117.12	121.39	119.34
Latin America & Caribbean	3.31	50.20	51.48	51.08	51.95	51.35	208.43	225.97	236.24	252.50	257.71
Middle East & North Africa	1.78	18.93	14.49	13.62	11.40	10.76	41.03	34.35	34.86	31.16	30.69
South Asia	1.08	45.20	44.21	42.52	42.49	40.20	477.21	497.28	506.64	534.53	524.75
Sub-Saharan Africa	1.33	51.09	52.05	54.01	52.80	50.49	238.10	264.60	297.09	314.39	317.20
Total	1.59	36.31	37.41	36.73	32.79	32.08	1517.37	1649.17	1702.24	1591.97	1605.13
(excluding China)	1.79	39.34	39.47	39.26	38.06	36.96	1213.98	1288.70	1353.84	1381.92	1391.71

Ravallion and Chen, “How did the World’s Poorest Fare in the 1990s” (World Bank background paper)