

Movement of Money, Capital, and People

1. Indicators of Globalization

- Commodity price convergence
- Factor movements (migration, capital flows)

2. Globalization and Development

- Introduction to the economics of growth
- Why poor countries should grow faster than rich countries

3. Convergence during the Golden Age

- Theory says poor countries should catch up (converge) on the rich
- Evidence of convergence in the Golden Era

Law of One Price: Commodity Price Convergence

ANGLO-AMERICAN COMMODITY PRICE CONVERGENCE				
Commodity	Markets	Price Gap by Year		
		1870	1895	1913
Wheat	Liverpool/Chicago	0.576	0.178	0.156
Meat	London/Cincinnati	0.925	0.923	0.179
Textiles	Boston/Manchester	0.137	0.037	-0.036
Iron	Philadelphia/London	0.75	0.434	0.206
Cotton	Liverpool/New York	0.133	0.112	0.097
Copper	Philadelphia/London	0.327	0.136	-0.001
Wool	Boston/London	0.591	0.659	0.279
Tin	New York/London	0.159	0.053	-0.023

In 1870, the price of wheat in Liverpool was 58% higher than in Chicago; by 1913, the price difference had fallen to about 16%. For copper, the differential all but disappeared (as in the Law of One Price).

The main cause? Improvements in transportation (shipping, refrigeration, railroads) helped integrate these markets

Int'l Movement of Capital and People

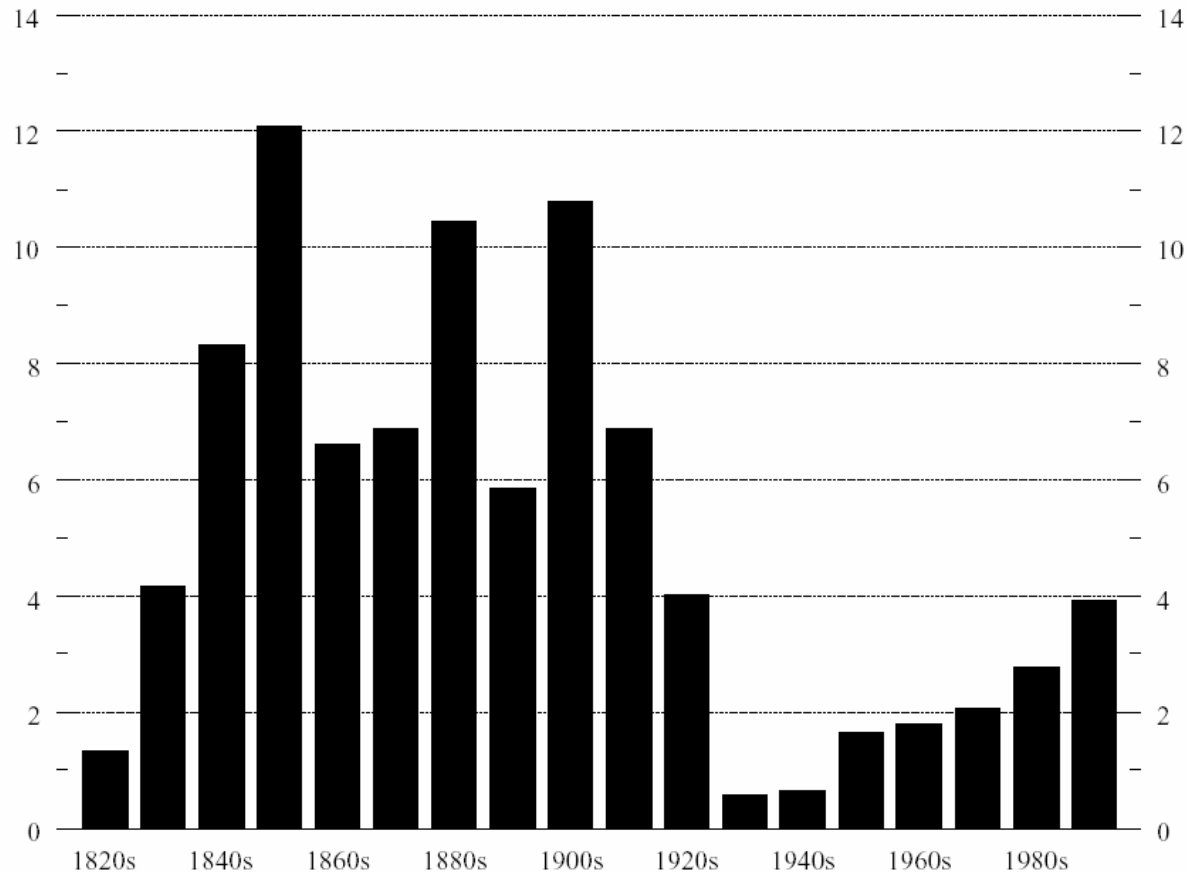
1. Goods, Capital, and Labor (factors of production) flowed across national frontiers in unprecedented quantities.

- As with trade, HO theorem helps us understand the pattern of factor flows: factors flowed from where they were abundant (cheap) to where they were scarce (expensive)

2. SS theorem helps us understand the distributional effects and, thereby, the structure of interests

- Owners of scarce factor (labor and capital in new world) were anti-globalization
- Owners of the abundant factor (labor in old world agrarian economies; land in the new world) were pro-globalization

US Immigration (% resident population)



Why did labor from the old world want to move to the US?

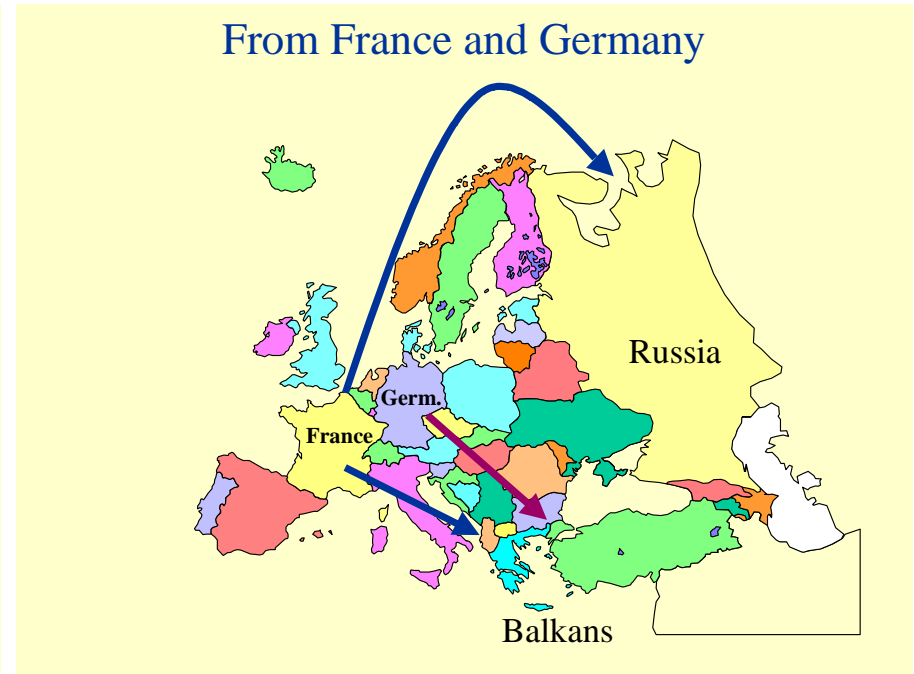
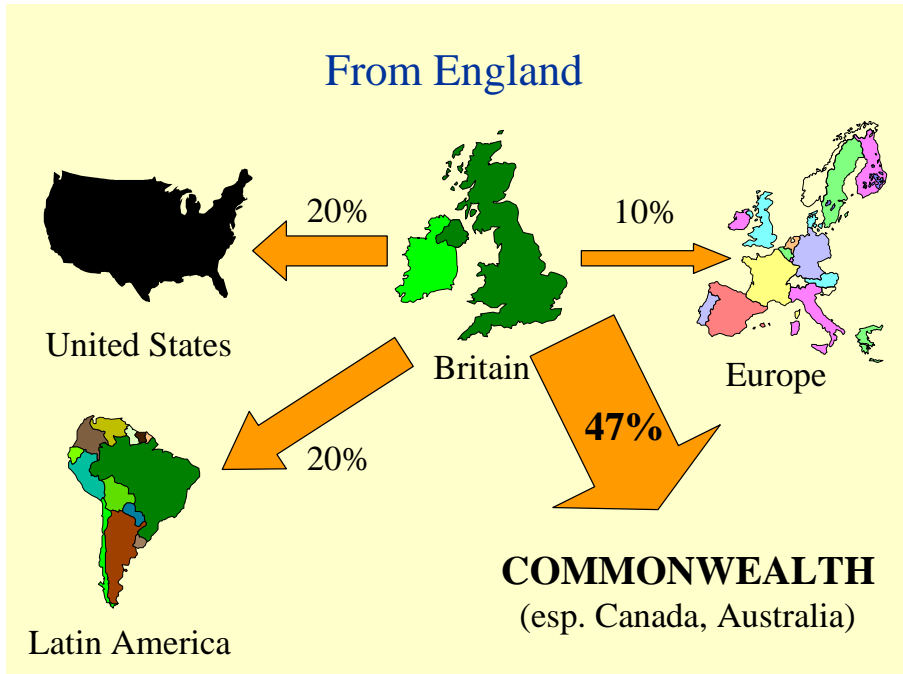
Immigration 1870-1913

European Periphery	
Denmark	-14
Norway	-24
Sweden	-20
Italy	-39
Portugal	-5
Spain	-6
Ireland	-45
European Industrial Core	
France	-1
Germany	-4
Great Britain	-11
Netherlands	-3
Areas of Recent Settlement	
Argentina	86
Australia	42
Canada	44
US	24

Migration as % of the 1910 labor force. E.g. Ireland lost 45% of its labor force to emigration; Argentina gained 86% of it's labor force to immigration

- Labor flowed from where it was abundant (cheap) to where it was scarce (and expensive). That is, from the Europe periphery to Areas of Recent Settlement (ARS).
- This raised wages in the Europe periphery and led to falling wages in ARS.
- Implication for **inequality**: inequality fell in the “old world” and increased in the “new world” (Williamson)

International Capital Flows: 1880-1913



Capital flowed from where it was abundant (Britain, France, Germany) to where it was scarce (Canada, US, Latin America, Australia).

English investors focused on Areas of Recent Settlement while French and German investors went to developing regions on the continent.

Globalization and Development

- What effect did globalization have on the gap between rich and poor countries?
- Did poor countries that embraced the world economy experience high rates of growth?
- To answer these questions, we need to consider causes of economic growth...

Economic Growth

- Define economic growth as growth in GDP per capita (increase in average income)
- Small differences in growth rates (increases in GDP per capita) have large effects
 - “**Rule of 70**” gives the doubling time: Number of years it takes for GDP per capita to double is $70 /$ annual growth rate in GDP per capita.
 - If growth rate is 2.7%, it takes 26 years for GDP per capita to double.
 - If growth rate is 0.7%, it takes 100 years to double
 - If growth rate is 0.3%, it takes 2,333 years to double

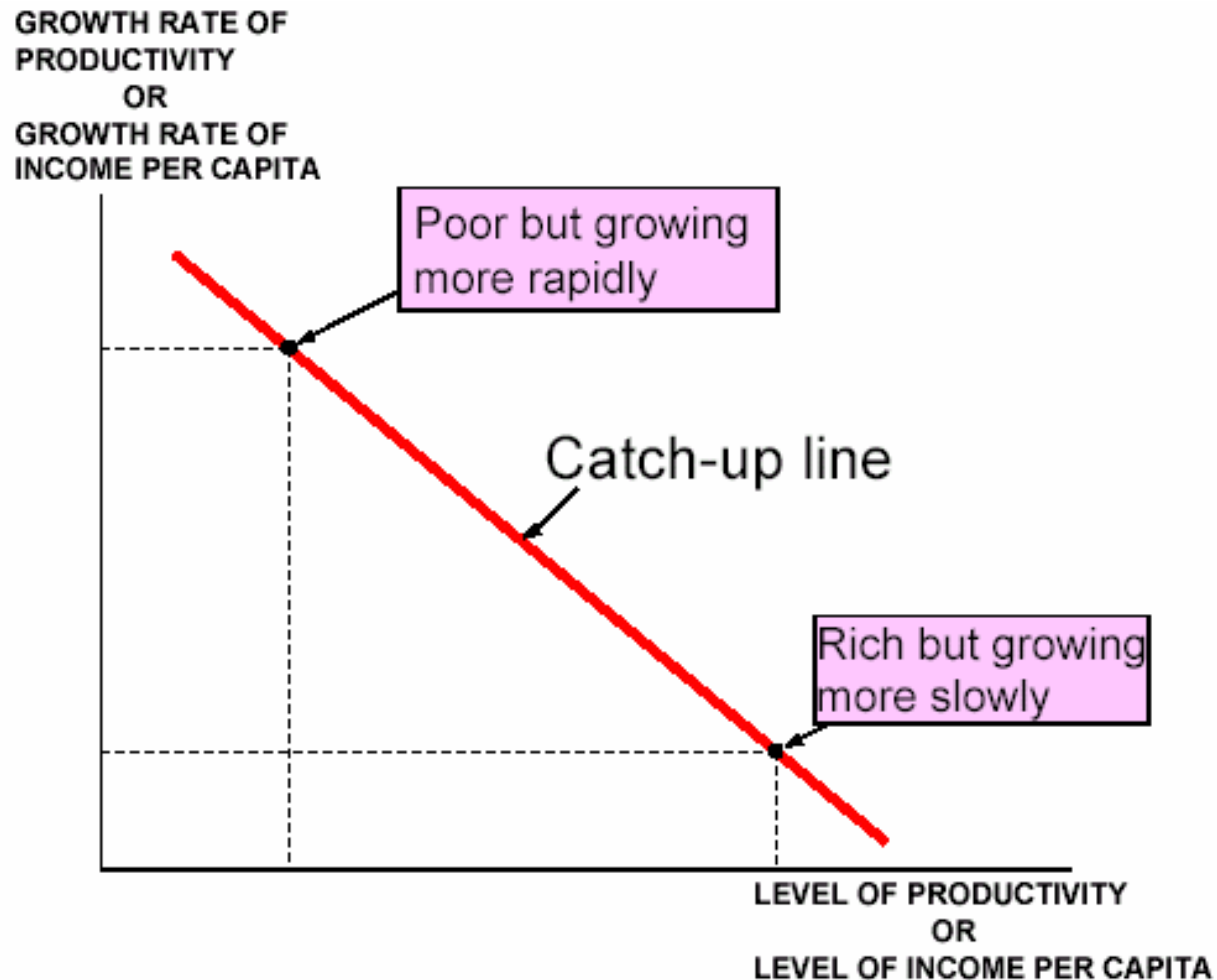
What Causes Economic Growth?

- Key to economic growth is higher productivity
 - Productivity = output (Y) per hour of work (L) = Y/L
 - Productivity is “the explanation” for why some countries are rich and others poor.
 - Countries behind on productivity are behind in GDP per capita. Productivity growth is how to achieve economic growth and higher income per capita

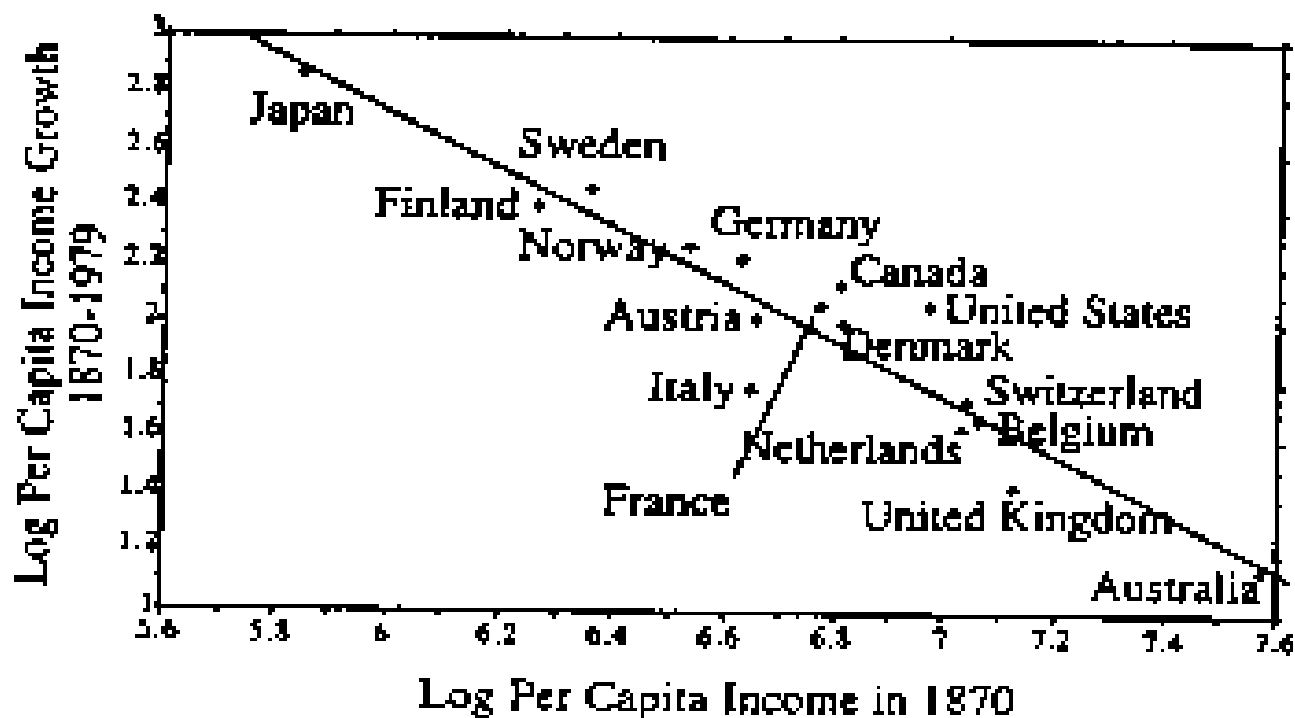
So what explains productivity growth?

- Higher productivity (Y/L) requires better technology or more capital
 - Better ways of producing goods raises productivity
 - More capital give workers more tools to use
- If there are no impediments to the flow and use of technology and capital, then countries that are behind in productivity should have higher productivity growth: they should be catching up with rich countries!
 - This is because technology should spread rapidly to poor nations through trade, investment, migration, the internet, etc
 - And capital should flow to where returns are higher (in poorer countries where capital is scarce)

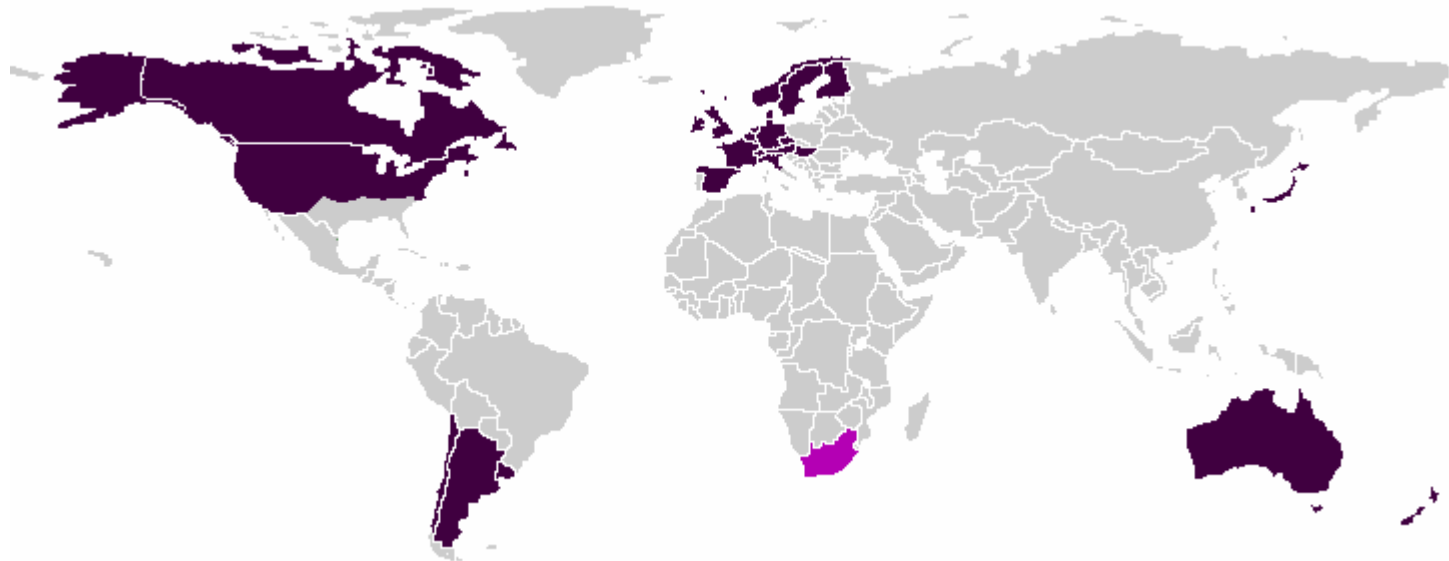
Catching-up is known as “Convergence” represented graphically below



Actual convergence (but with a limited sample of countries)



Convergence Club, 1870-1913

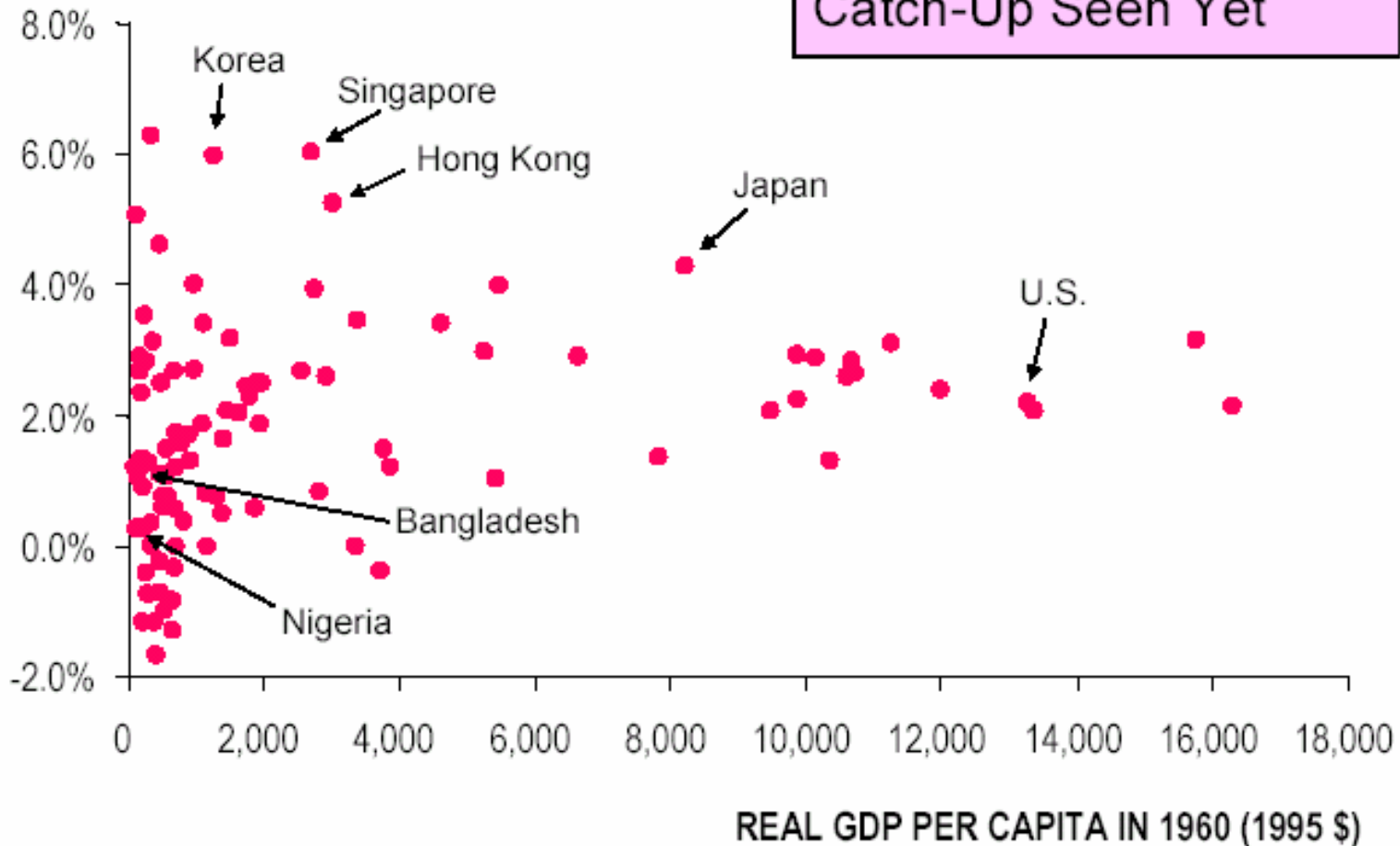


Member list: The shaded regions experienced convergence in the Golden Age: Areas of recent settlement (Canada, the U.S., Australia, New Zealand, Argentina, Chile, Uruguay, and perhaps South Africa), most of Europe (Belgium, the Netherlands, France, Germany, Switzerland, Spain, Italy, Austria-Hungary, Denmark, Norway, Sweden, Finland, and Ireland), plus Japan.

When all countries are considered, there's not much evidence of convergence

ANNUAL GROWTH RATE OF REAL GDP PER CAPITA, 1960-1999

All Countries: Not Much Catch-Up Seen Yet



Reasons for lack of catching up

- Government restrictions on economic transactions
 - Trade barriers, capital controls, state monopolies, and excessive regulation reduce incentives for innovations and investments needed to boost productivity
 - Generally, countries that integrate with the world economy experience convergence (Figures 3 and 4)
- Poor institutions
 - Weak property rights, absence of the rule of law, and corruption creates disincentives to invest in new firms or expand existing firms
- Poor education
 - Low educational attainment reduces human capital and impedes the adoption of new technologies