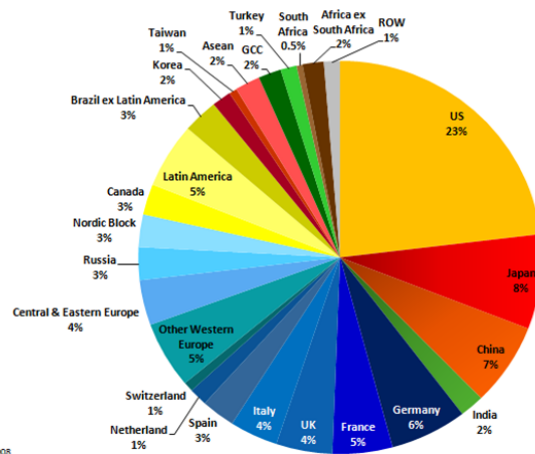


# Economic Growth: Facts

Econ 4960: Economic Growth



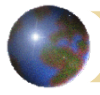
## Global size of GDP



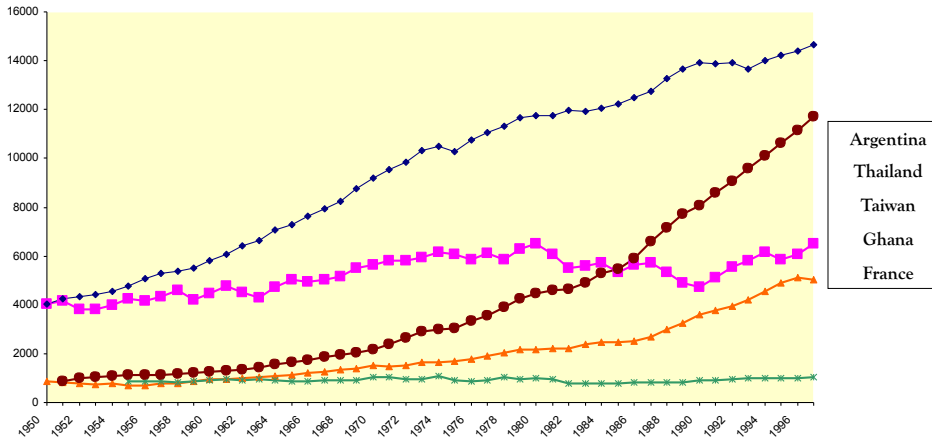
Source: IMF 2008



Econ 4960: Economic Growth



# Real GDP Per Capita



Econ 4960: Economic Growth

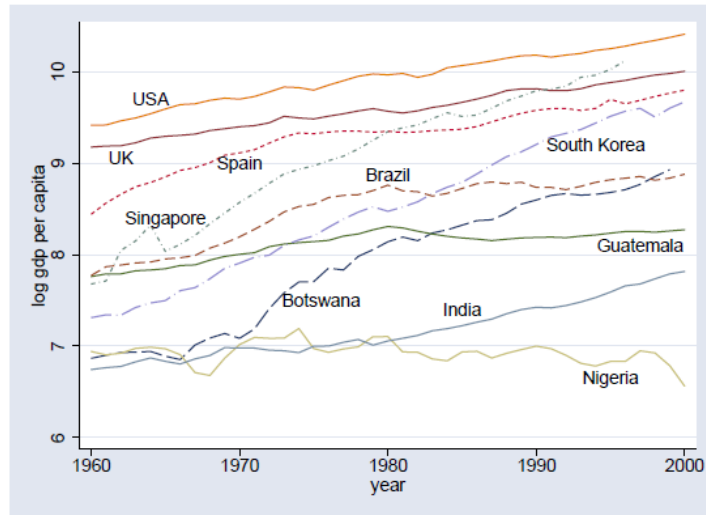
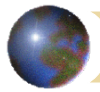
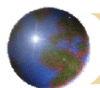


FIGURE 1.8. The evolution of income per capita in the United States, United Kingdom, Spain, Singapore, Brazil, Guatemala, South Korea, Botswana, Nigeria and India, 1960-2000.



### Robert Lucas (1988):

I do not see how one can look at figures like these without seeing them as representing *possibilities*. Is there some action a government of India could take that would lead the Indian economy to grow like Indonesia's or Egypt's? If so, *what*, exactly? If not, what is it about the nature of India that makes it so? The consequences for human welfare involved in questions like these are simply staggering: *Once one starts to think about them, it is hard to think about anything else.*

Econ 4960: Economic Growth

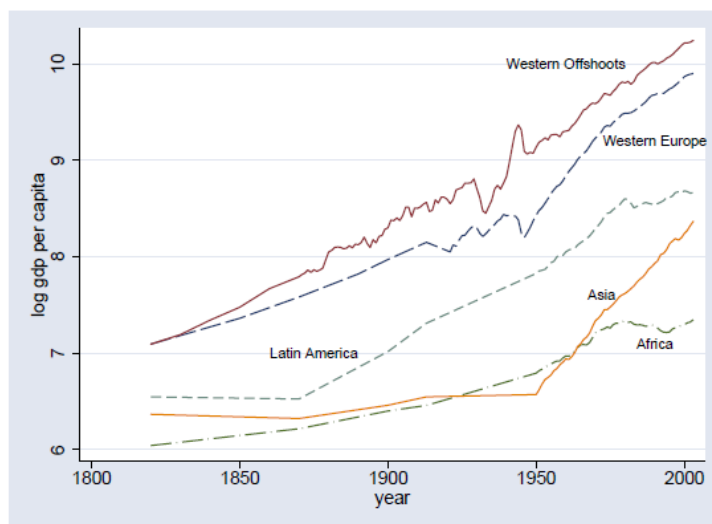
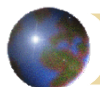


FIGURE 1.10. The evolution of average GDP per capita in Western Offshoots, Western Europe, Latin America, Asia and Africa, 1820-2000.

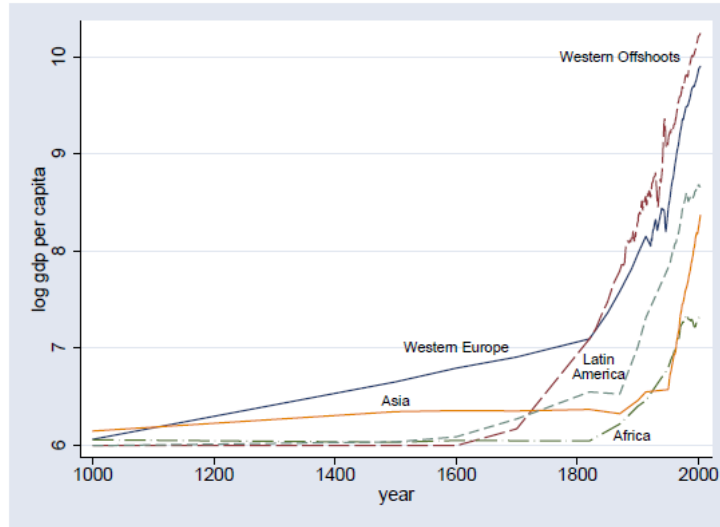
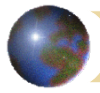


FIGURE 1.11. The evolution of average GDP per capita in Western Offshoots, Western Europe, Latin America, Asia, and Africa, 1000-2000.



## Questions this course will address

- ✦ Why do some countries grow so fast while others do not?
  - Is there something fundamentally different about the people of rich countries?
    - Scott Fitzgerald*: “The rich are different from us.”
    - Ernest Hemingway*: “Yeah, they have more money.”
  - Or are they due to external factors that can be changed?
- ✦ Can a single theory explain the growth experience of developed and developing countries? Or do we need separate theories for each “mature economies” versus “growth miracles”?
- ✦ Is there any evidence of “convergence” of economies?
- ✦ What kind of policies, if any, can promote growth? (Recall the Lucas (1988) quote.



## Absolute Convergence or the Lack Thereof

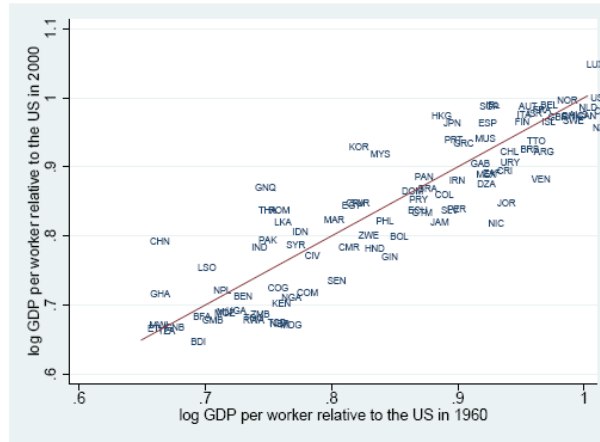
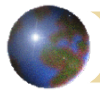


FIGURE 1.9. Log GDP per worker in 2000 versus log GDP per worker in 1960, together with the 45° line.

Econ 4960: Economic Growth



## Absolute Convergence or the Lack Thereof

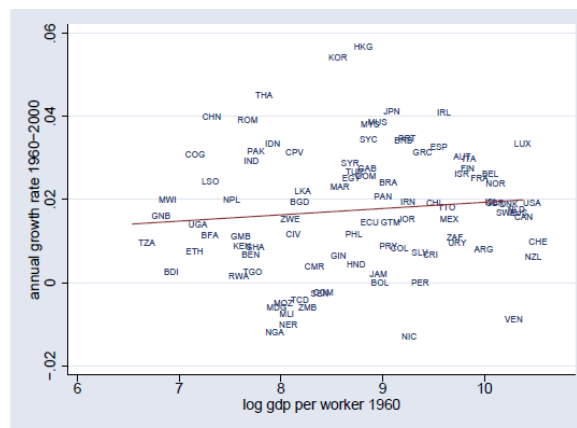


FIGURE 1.13. Annual growth rate of GDP per worker between 1960 and 2000 versus log GDP per worker in 1960 for the entire world.

Econ 4960: Economic Growth



## Conditional Convergence: Seems more plausible

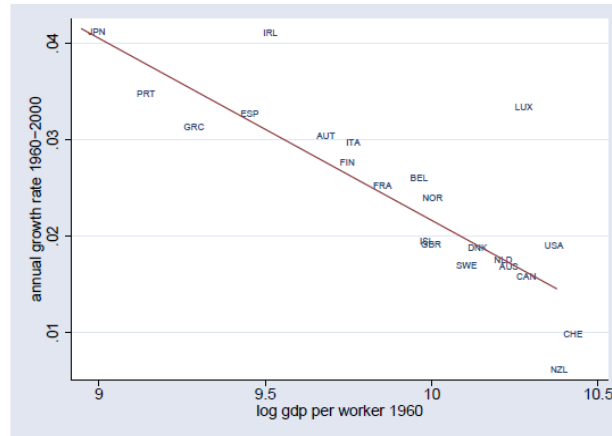


FIGURE 1.14. Annual growth rate of GDP per worker between 1960 and 2000 versus log GDP per worker in 1960 for core OECD countries.

Econ 4960: Economic Growth



## Why Care about GDP?

### ✚ Hunger

- ✚ The calorie intake is 1/3<sup>rd</sup> lower in poorest 1/5<sup>th</sup> of countries.

Econ 4960: Economic Growth

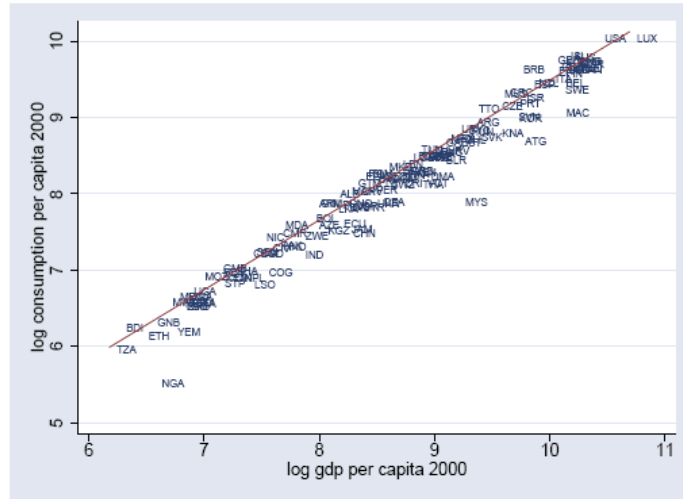


FIGURE 1.5. The association between income per capita and consumption per capita in 2000.

Econ 4960: Economic Growth



## Why Care about GDP?

### ✚ Hunger

- ✚ The calorie intake is 1/3<sup>rd</sup> lower in poorest 1/5<sup>th</sup> of countries.

### ✚ Related to infant mortality

- ✚ 1/2 million fewer children would have died in 1990 if Africa had grown 1.5% faster in the 1980's.  
(Caution: Need to be very careful about statements like this!)

### ✚ Related to Life expectancy

Econ 4960: Economic Growth

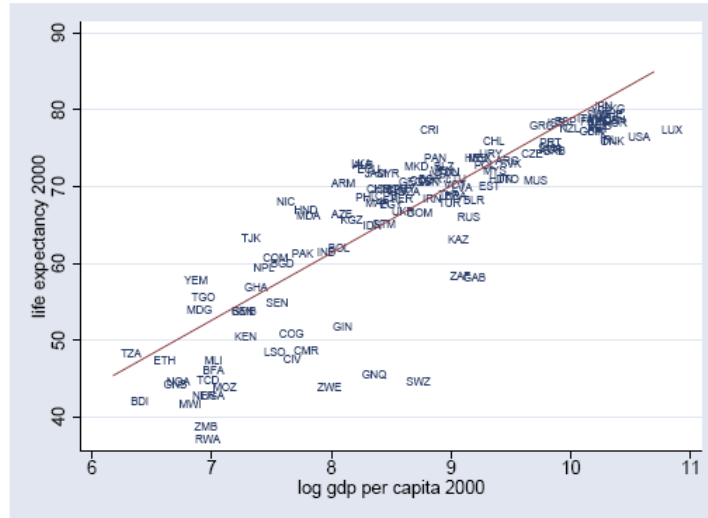


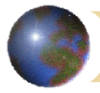
FIGURE 1.6. The association between income per capita and life expectancy at birth in 2000.



### Caution:

- ✦ These graphs merely show some “correlation”: that the two variables are related
- ✦ They do not—and cannot—prove any “causation”
- ✦ Therefore, we cannot—yet—infer whether high income causes longevity or the other way around!
- ✦ We need to be very careful before claiming “causation” (This is one of the most common and serious crimes committed by news media!)





### Correlates of Growth: Investment

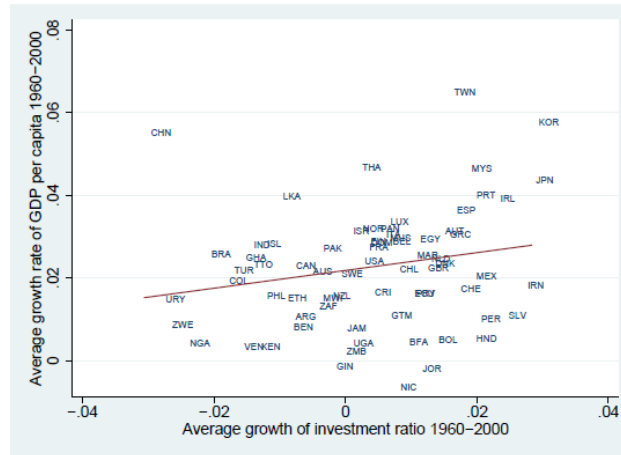
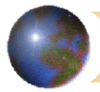
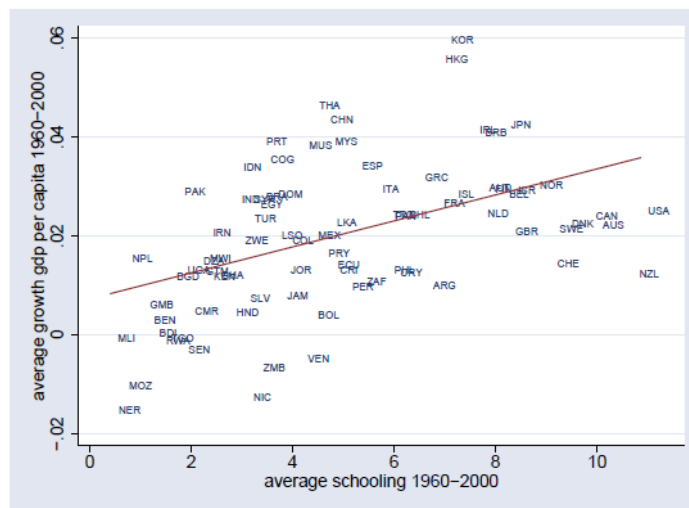
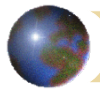


FIGURE 1.15. The relationship between average growth of GDP per capita and average growth of investments to GDP ratio, 1960-2000.



### Correlates of Growth: Education





### *Kaldor facts (Balanced Growth):*

In the last 150 years:

1. The real rate of return on capital shows no trend upward or downward (which is true even in different societies)
2. Share of income accruing to capital and labor owners show no trend
3. Average growth rate of output per person has been nearly constant over time

*Even though Nicolas Kaldor made these observations in 1960's, these "stylized facts" remain true today*

Econ 4960: Economic Growth