Development Economics

Lecture 1: Introduction to development

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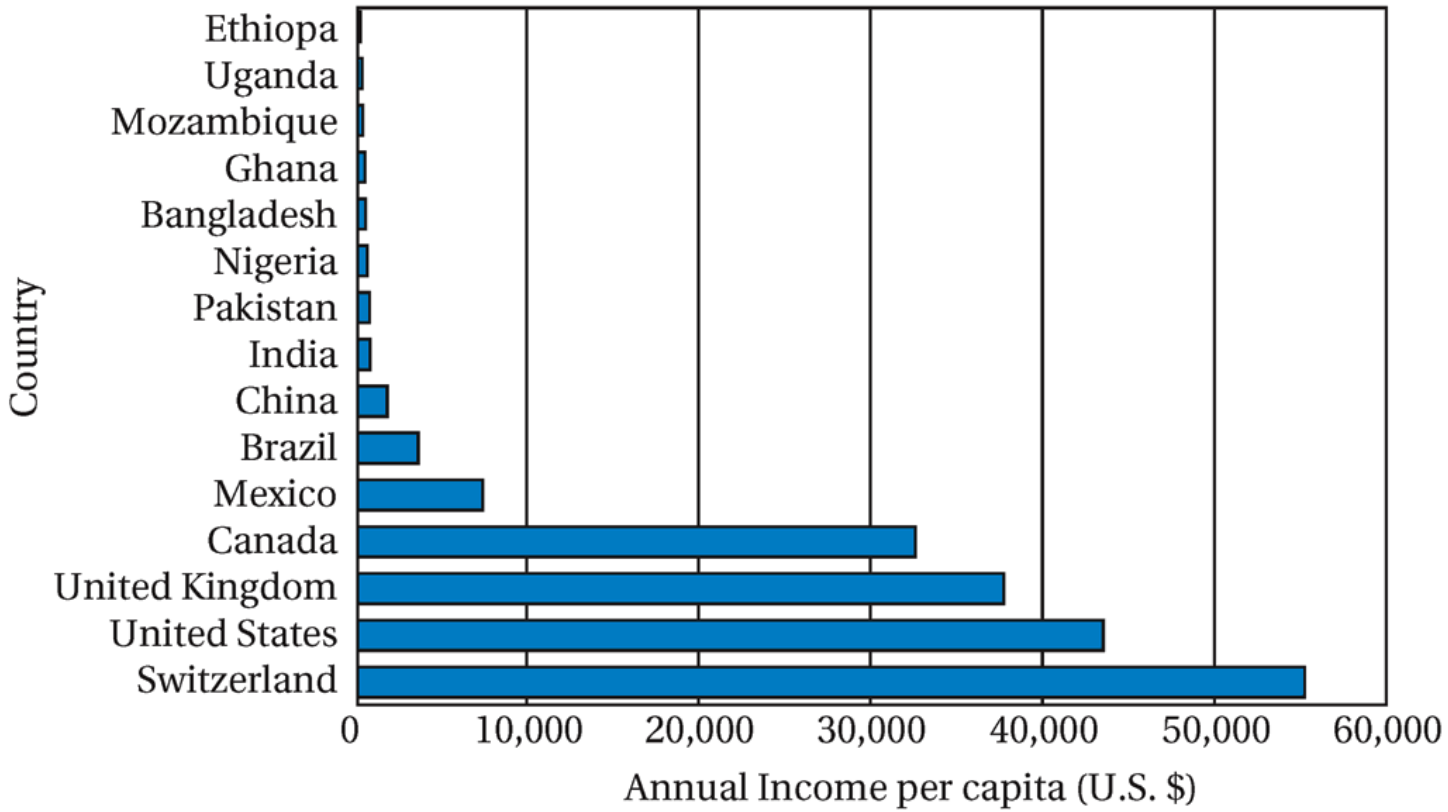
ECON 2273

This lecture

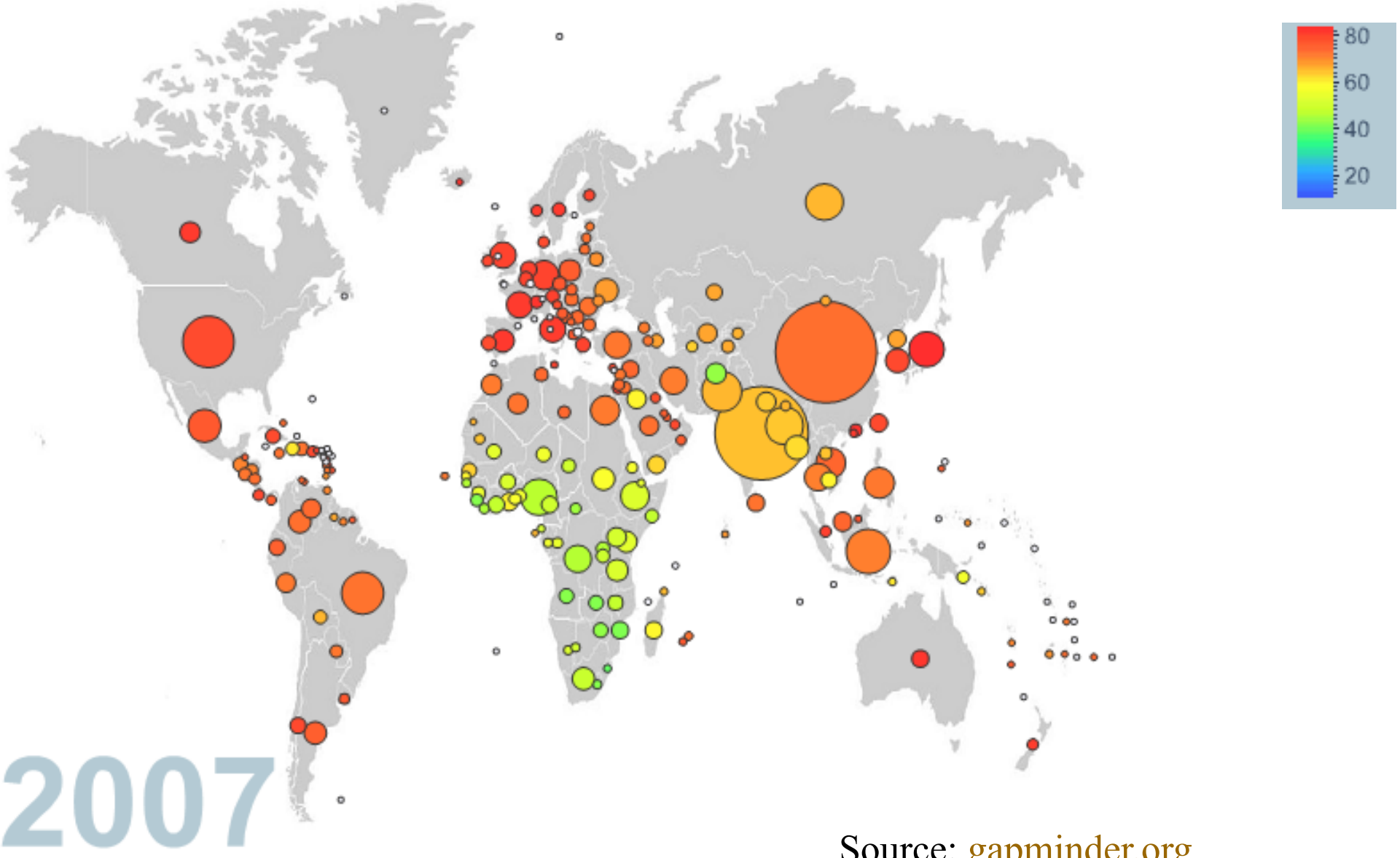
1. Three charts to summarize the world
2. Introduce Development Economics
3. Structure of the class: syllabus, topics, grading
4. The approach of the class
    1. Positive versus normative
    2. Our first model
5. What is the developing world?

The world is amazingly unequal



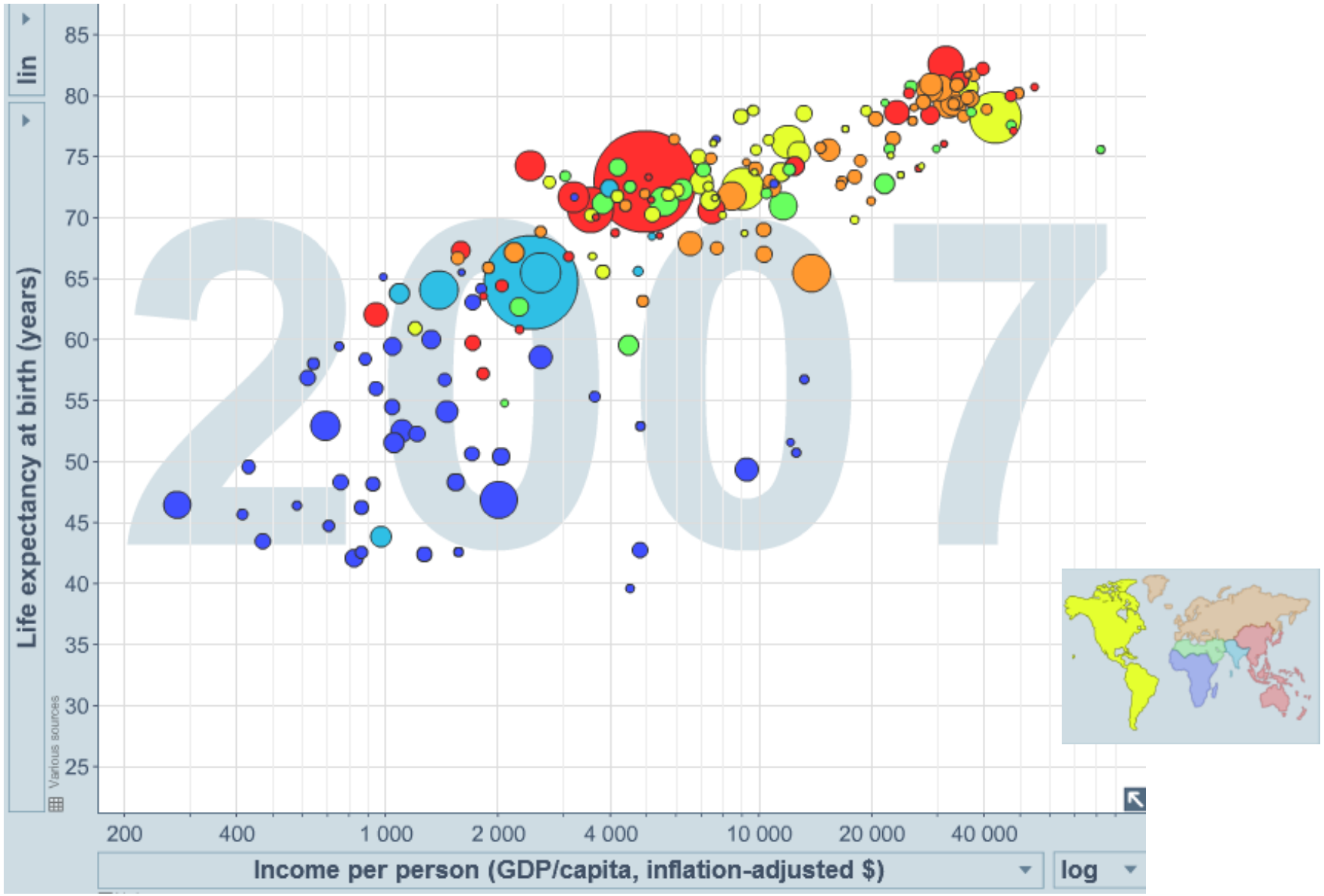
Source: Data from World Bank, *World Development Indicators, 2007* (Washington, D.C.: World Bank, 2007), tab. 1.1.

Life expectancy at birth around the world



Source: gapminder.org

Life expectancy at birth and income



Source: gapminder.org

What is Development Economics?

Three related approaches and definitions of development economics:

1. Todaro and Smith: Economics of contemporary underdeveloped countries
2. Study of how the developed countries became developed, and why the rest of the world did not develop
3. Study of the poor within any country: What constraints do the poor live under that are different? How do they live their lives?

Optimism

- Development is an optimistic field
  - Otherwise we would call it Poverty Economics
- By studying the economies of poor countries, and the poor themselves, we hope to understand what may be holding them back.
- We study development economics in the hope that by better understanding how development occurs, we can make the world a better place.
- We are in search of Development!

Respect

- Always remember that the poor are people.
- They deserve our respect, even if we earn more in a day or two than they earn in a year.
- Beware of "*Poverty Porn*"
  - The study of the poor, and images of the poor, for our own prurient interest.

- **Why do we study development economics?**
  - An example from recent earthquakes.

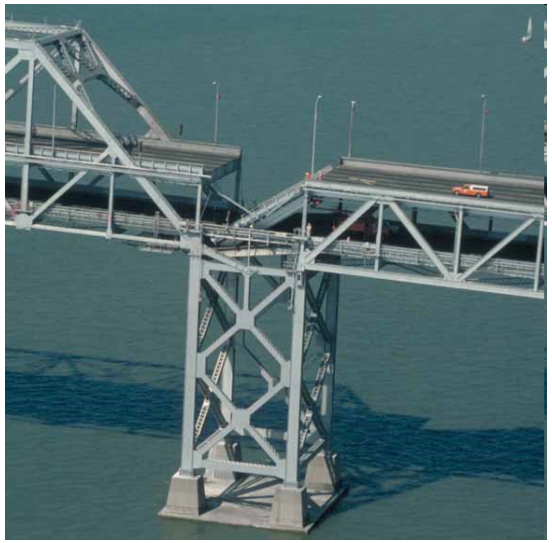
The earthquake in Haiti in 2010

- More than 200,000, buried in mass graves
- Continuing costs
  - Large destruction of infrastructure in an already poor place. Many left homeless.
  - Lack of food and water
  - Disease spreading, cholera in camps from poor sanitation, still not back to "normal"
- Difficulties getting aid in, distributing it, and still problems rebuilding

Lionel Michaud cried after finding his 10-month-old daughter among the bodies outside the central morgue. His wife was also killed when the building they lived in collapsed while he was at work.
Source: Photo: Damon Winter/The New York Times
http://www.nytimes.com/slideshow/2010/01/14/world/0114-HAITI_11.html

Earthquakes in California

- 1989 Loma Prieta earthquake (by San Francisco Bay area)
  - 6.9 and close to major population centers, much like Haitian earthquake
  - Caused 63 deaths
- 1906 San Francisco earthquake
  - Possibly a 7.9
  - Killed thousands



Source: USGS, pubs.usgs.gov/gip/2005/15/,
BBC http://news.bbc.co.uk/2/shared/spl/hi/pop_ups/06/sci_nat_san_francisco_earthquake___1906/html/1.stm

Why such differences in mortality?

- Why was the earthquake in Haiti so much more devastating than the one in California in 1989?
  - And 1906 so much worse than 1989?
- Answer: Development!
  - Haiti is very poor.
  - Poverty brings vulnerability.
    - Poorly constructed houses and buildings which collapsed easily
    - Poor infrastructure to get aid to those who need it
    - Poor government to organize efforts to save those trapped, distribute aid, rebuild.
- What happened in Haiti is **not** a natural disaster, it is a **development** disaster.

Structure of the class

- First half: macroeconomic approaches and the big picture
  1. Introduction: what are the issues
  2. Population growth and development
  3. Economic growth
  4. Convergence and empirical evidence
  5. New growth theories and coordination failures
  6. Institutions and long-run development
  7. Corruption
- Midterm in class on Monday, March 20

Structure of the class

- Second half: Microeconomic approaches
  1. Poverty and inequality
  2. The economic lives of the poor
  3. Education and child labor
  4. Health, nutrition and labor
  5. Credit and micro-credit
  6. Aid (both macro and micro)
  7. Urbanization and migration (we may not have time)
- Final Exam: TBD (May 9-16)

Grading

- Grades:
  - midterm exam (30%)
  - final exam (40%)
  - problem sets (30%)
- Problem Sets
  - 6 problem sets, due in class or before class in my box in the department.
  - Graded on a simple ✓+/✓/✓- scale:
    - Problem sets turned in on time and done completely will get a ✓ (the default grade)
    - Exceptional problem sets receive a ✓+,
    - Problem sets with significant problems or incomplete problems sets receive a ✓-.
  - Take the top 5 problem set grades
    - So you may skip one problem set!

Office Hours

- **Office:** Maloney 324
- **Office Hours:** MW 12:00-1:00pm

- **Lecture slides**: I post my lecture slides after lectures on my website www.anantnyshadham.com/teaching
- I will bring printed lecture notes for most lectures
  - But you should still take notes, either on the slides or separate paper.

Texts

- Two required texts
  - *Economic Development* by Todaro and Smith.
    - Any of 10, 11, or 12 edition should be fine.
  - *The Elusive Quest for Growth* by William Easterly.
- In addition, I will post readings from the syllabus on my website www.anantnyshadham.com/teaching
  - Many are economics research papers, and may be difficult to read.
  - Do the best you can, we will go over models in class.

Positive and normative statements

- We will consider ways to make *normative* statements (value judgments)
  - What forms of development do we value?
  - What course should development take?
  - What "functionings" are the most important?
- But mostly consider *positive* statements of whether we have reached our normative goals and whether there are better ways to reach those goals
  - Understand and measure the course of development (however we conceive it).

Twin goals (for positive statements)

- Describe the world in which we live by collecting information
  - How many poor are there? How many people are there? Are we richer than we were 200 years ago?
- Write models of human behavior and society which are consistent with the world we observe
  - Why does an economy grow? What causes changes in growth? Why do people have more (or fewer) children?
  - Models simplify and ignore some aspects of reality, and so are always at least a little bit wrong
  - Use mathematics to aid in thinking logically about the consequences of a model

Example: Population growth model

- Goal:
  - Write a simple model of population growth and production
  - Use the logic of mathematics to draw conclusions
- When considering a model and conclusions:
  - All models simplify!
    - Including in the sciences (quantum dynamics)
    - In economics, as in other behavioral or social sciences, the assumptions mean more because our subjects think back!
  - Key Questions:
    - Are the assumptions reasonable?
    - What evidence supports or disproves the assumptions and model conclusions?

Example: Population growth model

Define terms:

P_t Population in year t (P_{2016})

Y_t Income in year t ("GDP")

Y_t / P_t = avg inc per person ("GDP per capita")

How is Y made?

$$Y_t = f(P_t, T) = P_t^{1/2} T^{1/2}$$

Example: Population growth model

How does P evolve?

$P_{t+1} = (1+g) P_t$

g is growth rate of population

Example: g = 0.1 (10% growth)

If 100 people in t, 110 people in t+1

If P_0 is initial population

$P_1 = (1+g) P_0$

$P_2 = (1+g) (1+g) P_0 = (1+g)^2 P_0$

$P_t = (1+g)^t P_0$

Example: Population growth model

$$Y_t / P_t = (T^{1/2} P_t^{1/2}) / P_t = T^{1/2} / P_t^{1/2}$$

$$= T^{1/2} / ((1+g)^t P_0)^{1/2}$$

As t increases Y_t / P_t goes down

As t gets large, Y_t / P_t to 0

… what to do???