

# Rural and Urban I

10/14/2008

## Today's Agenda

1. Wrapping up population: Solow Model
2. Rural vs. Urban Sector: Basic Concepts
3. Rural-urban Interaction
  - A. Lewis Model
  - B. Lewis-Ranis-Fei Model

### 1. Solow Model

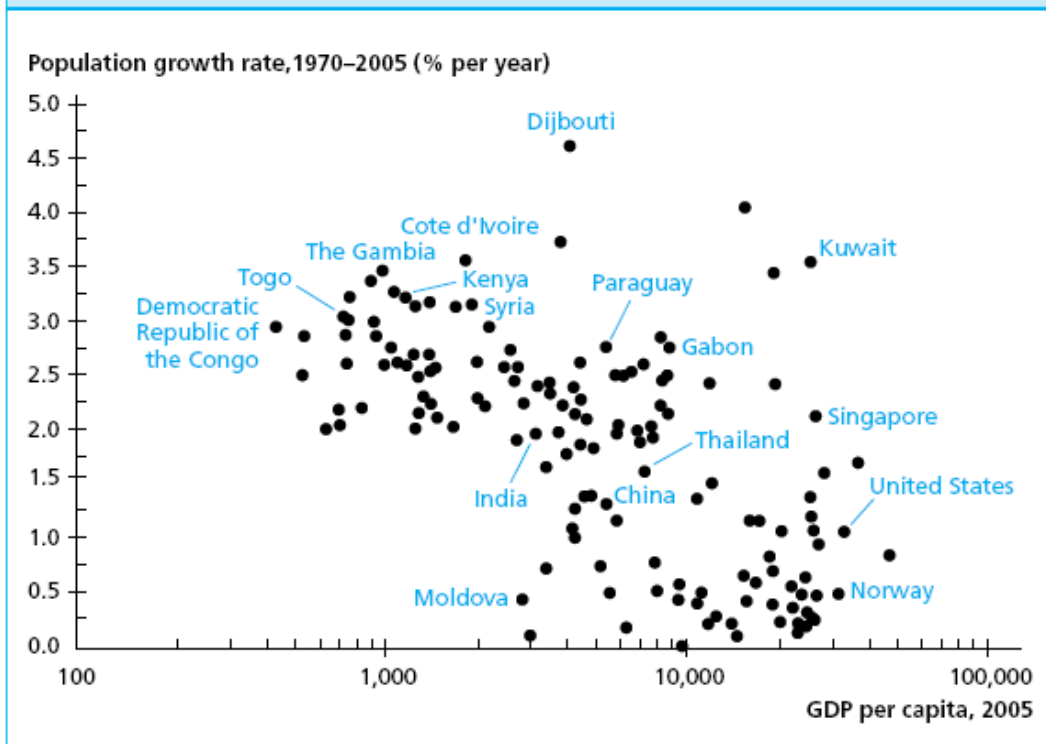
- Effect of population growth on income growth via the channel of capital dilution
- Start out with same basic Solow structure we saw before, add element of capital dilution

- Find steady state

- What does Solow model predict for relative levels of steady state output per worker?

**FIGURE 4.1**

**Relationship Between Income per Capita and Population Growth**



Source: Heston et al. (2006), World Bank (2007a).

## 2. Rural and Urban Sectors

- Structural transformation of an economy during process of economic development
- Most important structural feature: distinction between rural and urban sector
- Movement of labor and food from agricultural to non-agricultural sector
- Non-agricultural sector: formal and informal

## 3. Rural-urban interaction

- A. Lewis Model: View of development based on progressive transformation of “traditional” into “modern” sector
- “Dual economy”: think of traditional sector as agriculture and modern sector as industrial
  - Movement of labor from traditional → modern sector is centerstage
  - Traditional sector is supplier, modern sector soaks it up.
  - Modern sector limited by supply of capital

### i. Surplus Labor

Figure 10.1: Surplus labor on the family farm

ii. Income sharing and surplus labor

- Natural question: If marginal product of labor is close to zero, how is it that such labor is hired, unless wages are close to zero themselves?
- Traditional vs. modern sector
- “Natural Experiment”; Schultz again

iii. Two extensions of surplus labor concept

- Disguised unemployment: Not necessary that marginal product in traditional activity has to be exactly zero, as long as the marginal product is lower than in activities elsewhere, there are gains to be had from a reallocation of resources. May be measured roughly by the difference between the existing labor input in the traditional activity and the labor input that sets  $MPL = \text{wage}$ .
- Why are we interested in surplus labor? Will total output fall if we remove labor from agricultural pursuits?

B. Lewis-Ranis-Fei Model

- Traditional sector: surplus labor, disguised unemployment, income sharing
- Industrial/modern sector: capitalistic
- Economic development proceeds by the transfer of labor from agriculture to industry and the simultaneous transfer of surplus food-grain production, which sustains that part of the labor force engaged in nonagricultural activity

Figure 10.3: Lewis-Ranis-Fei model

*Next time: Rural-Urban Migration*