Chapter 3

Intro to Development Economics

Economic Development, 8th ed., by Todaro and Smith
Sources of economic growth

**Capital accumulation:** physical capital stock, infrastructure and human capital

**Technology:** new and improved ways of accomplishing production processes

**Population and labor force growth:** productive workers
Production possibility curve

for a given amount of capital, labor and technology, it portrays the **maximum** attainable output combination of any two bundles of commodities when all resources are *fully and efficiently employed*

**When does the PP curve shift?**

- **Parallel shift:** for given technology, both capital and labor double
- **Biased shift:** for given technology, only capital or only labor double
Types of technological progress

**Neutral:** when higher output levels are achieved with the same *quantity* and *combinations* of factor inputs

**Saving:** when a given level of output can be achieved with *less quantity* of labor or capital

- labor-saving
- capital-saving

**Augmenting:** when the *quality* of capital or labor is upgraded (*embodied* technological progress)

- labor-augmenting
- capital-augmenting
Kuznets:  
6 characteristics of modern growth

1. High rates of growth of per capita output and population
2. High rates of increase in total factor productivity (TFP)
3. High rates of structural transformation in the economy
4. High rates of social and ideological transformation
5. Propensity of developed countries to reach out to the rest of the world for markets and raw materials
6. Limited spread of economic growth to only a third of world’s population
On average, between 1770 and 2000, countries that are now industrialized.....

real GNP growth 3% per year
population growth 1% per year
per capita output 2% per year

Compute doubling years \([1+p/100]^T = 2\)

The number of years it takes to double....

real GNP 23 years
population 70 years
per capita output 35 years
What is TFP?

- It is the output per unit of all inputs
- It measures the **efficiency** with which all inputs are used
- It represents **technology**

Why is TFP important?

Because it accounts for about 50 to 75% of historical growth per capita in industrialized economies
Social and ideological transformation involves:

- **rationality** → opinions about economic strategies and policies should be logical inferences based on the knowledge of relevant facts
- **economic planning** → search for a rationally coordinated system of policy measures that can bring about development
- **social and economic equalization** → promotion of equality of opportunities
- **improved institutions and attitudes** → enhanced systems of administration and law; finding value in efficiency, integrity, etc.
Poor countries today

Rich countries today when they were poor

different initial conditions

physical and human resource endowments per capita GNP compared to rest of the world
climate
population size, distribution and growth
historical role of migration
international trade benefits
basic scientific and R&D
stability of political and social institutions
If poor and rich countries had similar initial conditions, then there would be **conditional convergence** in their incomes → developing countries would be **catching-up**

- **leapfrogging** → transfer and use of already invented technology
- **marginal decreasing returns in capital** → higher rate of accumulation of physical capital

Developing countries are not catching-up 😞
Malaysia - 2000

Capital: Kuala Lumpur
Area: 300 thousand km²
Population: 23 million
Annual population growth: 2.5%

GNI per capita (PPP): $ 8,360
GNP per capita growth rate: 4.5%
Agriculture % GDP: 12%
Exports % GDP: 110%

Females as share of labor force: 37%
Illiteracy rate: 13%
Mortality under age 5: 10 per 1,000 live births
Child malnutrition: 20%
HDI: 0.774 (high)
Other facts in Malaysia

Malaysia has high population growth and diverse ethnicity: Malays (50%), Chinese (33%)

It is politically stable and its institutions are flexible

Rich in resources: land, well-educated workforce

Malaysia was a British colony until 1957
Economics in Malaysia

Average annual growth rate of 5.5% in the 1990s

Striking combination of sustained economic growth and low inflation

Top-performing developing country since 1960s

Economic development strategy: education, health and employment creation

Main products: rubber, tin, palm oil, tropical timber, oil.

U.S., Japan and Singapore have invested in production and exports of electric consumer goods
Problems in Malaysia

vulnerability to external shocks: due to high importance of exports on GDP (110%), and high economic links to Asia (specially Japan) and the industrial world