**ECON 1000 – Contemporary Economic Issues**

“Economic Growth”

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**Relevant Readings from the Required Textbooks:**
- Chapter 7, *Gross Domestic Product and Economic Growth*

**Definitions and Concepts:**
- **economic development** – improvements over time in a society’s quality of life and living standards
  - by definition, very qualitative in nature
  - includes, but not limited to, increased consumption of material goods/services
- **economic growth** – sustained increases over time in a society’s value of Real GDP
  - graphically illustrated by an outward shift of the PPF
  - measured quantitatively as the percentage increase in Real GDP
- **GDP growth rate** – annual percentage change in the value of real GDP
- **catch-up effect** – conjecture that (all other factors fixed) the growth rates of less developed countries will exceed the growth rates of developed countries, allowing the less developed countries to “catch up” over time
- **Rule of 72** – the observations that a variable that grows at a constant rate of “X% per period” will double in value in approximately “(72/X) periods”
- **physical capital** – machines, building, factories, and other equipment used in the production process
- **human capital** – the knowledge, education, skills, experience, work ethic, interpersonal skills, and other attributes of workers which determine productivity
- **technology** – the application of scientific and engineering principles to the problem of production
- Four broad sources of economic growth (i.e., changes that would lead to an “outward movement of PPC over time”)
  1. Increases in the quantity of labor (i.e., more workers)
  2. Increases in the quantity of physical capital (e.g., more factories, trucks, computers, electricity plants)
  3. Improvements in quality of labor (e.g., workers are more highly educated/skilled)
  4. Improvements in technology
- **three common ways to achieve economic growth:**
  1. Deliberate investments in human capital and physical capital (either by individuals or society) => when a society devotes more resources to producing capital goods today, they will have more capital goods available in the future (but, at the expense of having fewer consumer goods in the present period)
  2. Deliberate investments by society in overhead capital (overhead capital – basic infrastructure such as railways, roads, telecommunications networks, electricity supply systems, water supply systems)
  3. Realize improvements in technology which fundamentally alter the type of capital available or the production process => most economic growth in recent decades and centuries has come from improvements in technology
• **three impediments to achieving growth:**
  I. difficulties in developing physical capital
    • **Vicious-cycle-of-poverty hypothesis** – conjecture that poor countries will remain poor since they do not have sufficient resources available to make the investments in capital which are necessary for economic growth
    • **Capital flight** – tendency for wealthy people in poor countries to invest their financial capital abroad instead of at home
  II. difficulties in developing human resources
    • poor health outcomes degrade human resources
      ▪ 2016: 445,000 malaria deaths (91% in Africa)
      ▪ 2016: 1.0 million AIDS-related deaths (73% in Africa)
    • **brain drain** – tendency for the most highly talented people from developing countries to become educated and then move to an already wealthy country
  III. poor legal, political, and economic institutions
    • **Rule-of-Law** – environment in which property rights and contracts are respected and administered fairly and transparently, without favoritism
      ▪ countries lacking rule-of-law have difficulty achieving growth
    • **Crony Capitalism** – environment in which well-connected unscrupulous business people use corrupt political systems to their advantage in order to obtain preferential treatment from government (e.g., government contracts, subsidies, bailouts, tax loopholes)
      ▪ in such an environment, the efficient use of resources is distorted to the detriment of economic growth
    • Government ownership/control of productive resources (i.e., a reliance on planning instead of markets, socialism instead of capitalism)
      ▪ government ownership of resources removes profit motive => reduced incentive to create value and innovate to reduce costs (dampening economic growth)
**Socioeconomic “Quality of Life” Measures:**

- **Life Expectancy at birth:** expected lifespan at birth, measured in years
- **Infant Mortality Rate:** number of deaths per 1,000 live births
- **Literacy Rates:** percentage of population over age of 15 that can read and write
- **Cellular Subscribers:** number of cellular phone subscriptions per 100 people
- **Avg. Annual Working Time:** average number of hours worked per year per worker

<table>
<thead>
<tr>
<th>Country</th>
<th>Life Expectancy</th>
<th>Infant Mortality</th>
<th>Literacy Rate</th>
<th>Cellular Subscribers</th>
<th>Avg. Annual Work Time</th>
<th>GDP Per Capita (PPP)</th>
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**Examples of recent GDP Growth Rates:**

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Multiple Choice Questions:
- Questions 8-11, 17, 19, and 21-23 on pages 178-181 in textbook (answers on page 350)

Additional Multiple Choice Questions:

1. ________________ refers to an environment in which well-connected unscrupulous business people use corrupt political systems to their advantage in order to obtain preferential treatment from government.
   A. Crony Capitalism
   B. Economic Development
   C. The Catch-Up Effect
   D. Rule-of-Law

2. Suppose that “County Z” were to realize a constant GDP Growth Rate of 4% per year. It follows that Real GDP would double in roughly ________ years.
   A. 4
   B. 18
   C. 25
   D. 72

3. The “Catch-up effect” suggests that, all other factors fixed,
   A. the only way for firms in high tech industries to catch-up to their competitors is to invest large amounts of resources in research and development.
   B. the global economy is “rigged against new entrants,” in that there is no way for poor countries to catch-up with rich countries.
   C. growth rates of less developed countries typically exceed growth rates of developed countries, implying that the gap in GDP between less developed and developed countries will decrease over time.
   D. whenever a country experiences rapid growth in GDP, they must also experience an increase in income inequality.

4. When observing “Average Annual Working Time” across different countries, it was noted that the typical worker in the U.S. spends roughly 1,780 hours per year working. In comparison to other countries, this is
   A. more hours than any other country in the World (since the country with the second highest value is Mexico, with a figure of 1,756 hours per year).
   B. fewer hours than any other country in the World (since the country with the second lowest value is Japan, with a figure of 1,804 hours per year).
   C. higher than the figure for Germany (1,356 hours), roughly equal to the figure for Italy (1,723 hours), but lower than the figure for South Korea (2,024 hours).
   D. exactly equal to the World average, since there is no variability whatsoever in “Average Annual Working Time” across different countries.
5. ________________ broadly refers to the knowledge, education, skills, experience, work ethic, inter-personal skills, and other attributes which determine worker productivity.
A. Worker Mortality
B. Technology
C. Physical Capital
D. Human Capital

6. A society can achieve economic growth by
A. making deliberate investments in human capital and physical capital.
B. making deliberate investments in overhead capital.
C. realizing an improvement in technology.
D. More than one (perhaps all) of the above answers is correct.

7. Economic Growth is
A. visually illustrated by an inward shift of the Production Possibilities Frontier.
B. simply a result of whether or not a country has access to natural resources (and is therefore simply determined by “chance” or “nature”).
C. defined as a sustained increases over time in a society’s value of real GDP.
D. More than one (perhaps all) of the above answers is correct.

8. Based upon the current values of “life expectancy at birth” for different countries around the world which were discussed in lecture,
A. life expectancy at birth is lowest in “capitalist societies” (such as New Zealand (54.28 years), Singapore (59.82 years), and Hong Kong (60.36 years)), as a result of big business exploiting labor and “working people to death.”
B. life expectancy at birth in the U.S. (80.0 years) is neither the longest nor the shortest life expectancy in the world.
C. countries around the world typically fall into one of two categories – “long life span countries” (those with life expectancies above 85 years, which account for about 37% of countries worldwide) and “short life span countries” (those with life expectancies below 50 years, which account for 55% of countries worldwide) – with very few countries (only 8%) realizing life expectancies between 50 and 85 years.
D. More than one (perhaps all) of the above answers is correct.

9. Around the time of the Cuban Revolution in 1953, Real Per Capita GDP in Puerto Rico and Cuba were roughly equal to each other (standing at about $4,000). By 2015, Real Per Capita GDP was ________ in Cuba and ________ in Puerto Rico.
A. $2,986; $2,874.
B. $3,746; $2,075.
C. $7,889; $35,384.
D. $39,711; $12,396.
Answers to Multiple Choice Questions:

1. A
2. B
3. C
4. C
5. D
6. D
7. C
8. B
9. C