Macro Economy Today 15th edition Schiller Solutions Manual

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Chapter 2

THE U.S. ECONOMY: A GLOBAL VIEW

WHAT IS THIS CHAPTER ALL ABOUT?

All nations confront the central economic questions: What to produce, How to produce; and For Whom to produce. However, the nations of the world approach these issues with very different production possibilities. The objective of this chapter is to assess how the U.S. economy stacks up. Specifically, this chapter address these three questions:

1. **WHAT goods and services does the United States produce?**
2. **HOW is that output produced?**
3. **FOR WHOM is the output produced?**

LEARNING OBJECTIVES:

After reading this chapter, the students should know:

1. The relative size of the U.S. economy.
2. How the U.S. output mix has changed over time.
3. How the United States is able to produce so much output.
4. How incomes are distributed in the United States and elsewhere.

NEW TO THIS EDITION

The changes to this chapter include:

- *Completely updated economic comparisons.*
- *All global economic data updated.*
- *All problems revised.*

LECTURE LAUNCHERS

How long will this chapter take? Two 75-minute class periods.

Where should you start?

1. Begin your discussion by asking students how economic freedom affects a nation's ability to grow.

a. *Ask students if economic freedom can help create jobs and grow the economy in poor countries.*
b. *Ask student if the high degree of market reliance in the U.S. economy is responsible for our superior economic growth.*

2. Ask students why we need government regulation of economic activities.
Government provides the framework in which businesses can operate.

3. Ask students what factors may be contributing to income inequality.
Are we becoming a nation of "haves" and "have nots"?

COMMON STUDENT ERRORS

Students often believe the following statements are true. Each incorrect statement is followed by a corrected version and an explanation. These common errors are also included in the student study guide.

1. A higher GDP means an increase in the standard of living. **WRONG**!
A high per capital GDP is an imperfect measure of the standard of living. **RIGHT!**
Many developing countries experience a rise in GDP, but their population grows faster. This means that there is actually less income per person and the standard of living falls! The growth in population must be taken into account in measuring the standard of living, which is the reason that the per capita GDP, not just the GDP, is used. However, even the per capita GDP measure fails to take into account the distribution of income.

2. Investors make an economic investment when they invest in the stock market. **WRONG!**
Economic investment occurs only with the tangible creation or maintenance of capital goods. **RIGHT!**
A distinction must be made between financial investment and economic investment. Common usage usually refers to financial investment in which individuals purchase a financial security backed by a financial institution. Such an activity is called saving–the alternative to immediate consumption. This saving may eventually be used by financial corporations to make loans that will lead to economic investment. But economists have found that saving does not necessarily equal investment. Depending on the class, you may explain that the U.S. often saves less than it invests. This excess of investment over savings is financed by savings from the rest of the world. Therefore, economists analyze saving and investment separately.

ANNOTATED OUTLINE

I. Introduction

A. All nations confront the central economic questions of WHAT to produce, HOW to produce, and FOR WHOM to produce it. However, the nations of the world approach these issues with very different production possibilities.

B. In addition to varying production possibilities, the nations of the world use different mechanisms for deciding WHAT, HOW, and FOR WHOM to produce.

C. The objective of this chapter is to assess how the U.S. economy stacks up. Specifically,
   1. WHAT goods and services does the United States produce?
   2. HOW is that output produced?
   3. FOR WHOM is the output produced?

II. What America Produces

A. The U.S. has less than 5 percent of the world's population, yet it produces over 20 percent of the world's output.

B. GDP Comparisons
   1. **Definition**: **Gross Domestic Product (GDP) –** The total market value of all final goods and services produced within a nation's borders in a given time period.
   2. **World View: Comparative Output**
      The market value of output (GDP) is a basic measure of an economy's size. The U.S. economy is far larger than any other and accounts for nearly one-fifth of the entire world's output. This World View provides bar chart data comparing U.S. GDP to several other nations.
   3. In 2015, the U.S. economy produced about $18 trillion worth of goods and services compared to the second largest economy, China, which produced only $11 trillion.
   4. Per Capita GDP
      - Per capita GDP is an indicator of how much output the average person would get if all output were divided up evenly among the population.
      - **Definition: Per Capita GDP** – The dollar value of GDP divided by total population: average GDP.
      - With less than 5 percent of the world's population, the United States produces far more output per person than other countries do.
      - In Ethiopia and Haiti, per capita incomes are less than $1,000 per year – which is less than four dollars per day.
      - **World View: GDP per Capita Around the World**
        Per capita GDP is a measure of average living standards. Americans have access to far more goods and services than do people in other nations. This World View provides bar chart data comparing U.S. GDP per capita to several other nations.
   5. GDP Growth (Figure 2.1)
      - The GDP gap between the United States and most of the world's poor nations keeps growing.
      - The reason for this growing gap is economic growth.
      - **Definition: Economic Growth** – An increase in output (real GDP); an expansion of production possibilities.
      - On average, U.S. output has grown by roughly 3 percent a year, nearly three times faster than population growth (1 percent).

- As a result, not only does total output keep rising, but so does per capita output.

6. Poor Nations (Table 2.1)
    - Some poor nations demonstrated economic growth (China and India).
    - However, in many poor nations, total output has actually declined year after year, depressing living standards.
    - For example, between 2000 and 2015, Zimbabwe's GDP declined by an average of 1.9 percent per year.
    - As a result, Zimbabwe's output in 2015 was 40 percent smaller than in 2000.
    - With negative economic growth and 0.9 percent average annual population growth, Zimbabwe's per capital GDP fell below $400 a year with two-thirds of its population being undernourished.
    - Even nations with positive GDP growth (e.g. Haiti, West Bank/Gaza) didn't grow fast enough to raise living standards.
7. The Mix of Output (Figure 2.2)
    - The mix of output in any nation always includes both goods and services.
    - A century ago, about two-thirds of U.S. output consisted of goods while one-third of output consisted of services.
    - Since then, over 25 million people have left farms and sought jobs in other sectors.
    - The relative decline in goods production does not mean the U.S. is producing fewer goods. Manufacturing output has increased fourfold since 1950. Today's mix of output is simply different.
8. Development Patterns
    - The transformation of the U.S. into a service economy is a reflection of our high incomes.
    - In Ethiopia, where the most urgent concern is still to keep people from starving, over 50 percent of output comes from the farm sector. Because poor countries can't afford it, services are not produced and consumed there.

III. How America Produces

A. Factors of Production

1. **Definition: Factors of Production** – Resource inputs used to produce goods and services, e.g., land, labor, capital, entrepreneurship.
2. Human Capital
    - Nations can accumulate various forms of capital.
    - The knowledge and skills workers possess can also be accumulated.
    - **Definition: Human Capital** – The knowledge and skills possessed by the workforce.
    - In the poorest countries, fewer than half ever attend high school. As a result, many are unable to read a book or even write their own names. Without functional literacy, such workers are doomed to low-productivity jobs.
    - The high output of the U.S. is explained not only by a wealth of resources but by their quality as well. The high productivity of the U.S. economy results from using highly educated workers in capital-intensive production processes.
    - **World View: The Education Gap Between Rich and Poor Nations**

The high productivity of the American economy is explained in part by the quality of its labor resources. Workers in poorer, less developed countries get much less education or training. This World View provides bar chart data comparing U.S. enrollment in secondary schools to other nations in the world based on income status of the nation.

3. Capital Stock
    - The exceptional productivity of American workers is due in large part to an abundance of capital.
    - American production tends to be capital-intensive while many other nations tend to use labor-intensive production processes.
    - **Definition: Capital-Intensive** – Production processes that use a high ratio of capital to labor inputs.
4. High Productivity
   Skilled workers coupled with sophisticated capital equipment explain why the U.S. leads other nations in worker productivity.
    - **Definition: Productivity** – Output per unit of input such as output per labor-hour.
    - **Factor Mobility** – Our continuing ability to produce the goods and services that consumers demand also depends on our ability in reallocating resources from one industry to another.
    - **Technological Advance** – Whenever technology advances, an economy can produce more output with existing resources. Its PPC will shift outward.
    - **Outsourcing and trade** – Technological advances permit global resource use. Advances in telecommunications have facilitated this. Although some US workers suffer job losses in this process, productivity and total output increase as U.S. workers pursue their comparative advantage.

B. Role of Government
- We must also take heed of the role the government plays in choosing HOW a nation's goods and services are produced.
- The Heritage Foundation has documented a positive relationship between the degree of economic freedom and economic growth.

1. Providing a Legal Framework
    - One of the most basic functions of government is to establish and enforce the rules of the game.
    - The government gives legitimacy to contracts by establishing the rules for such pacts and by enforcing their provisions.
    - By establishing ownership rights, contract rights, and other rules of the game, the government lays the foundation for market transactions.
2. Protecting the Environment
    - The legal contract system is designed to protect the interests of a buyer and a seller who wish to do business.
    - What if the business they contract for harms third parties?
    - **Definition: Externalities** – Costs (or benefits) of a market activity borne by a third party.
    - In the absence of government intervention, such side effects would be common.
    - To reduce the external costs of production, the government limits air, water, and noise pollution and regulates environmental use.
3. Protecting Consumers

- The government also uses its power to protect the interests of consumers.
- One way to do this is to prevent individual business firms from becoming too powerful.
- **Definition: Monopoly** – A firm that produces the entire market supply of a particular good or service.
- To protect consumers from monopoly exploitation, the government tries to prevent individual firms from dominating specific markets.
- The government also regulates the safety of products.

4. Protecting Labor
   - The government also regulates how labor resources are used in the production process.
   - In many poor nations, children are forced to start working at very early ages. They don't get the change to go to school or to stay healthy.
   - In the U.S., child labor laws and compulsory schooling prevent minor children from being exploited.
   - Government regulations also set standards for work place safety, minimum wages, fringe benefits, and overtime provisions.

C. Striking a Balance
1. Government interventions are designed to change the way in which resources are used.
2. Such interventions reflect the conviction that the market alone might not select the best possible way of producing goods and services.
3. There is no guarantee, however, that government regulation of HOW goods are produced always make us better off.
4. Government failure might replace market failure, leaving us no better off-possibly even worse off.

IV. For Whom America Produces

A. U.S. Income Distribution (Figure 2.3)
1. Income Quintile
   Definition: Income Quintile – One-fifth of the population, rank-ordered by income (for example, top fifth).
2. The top 20 percent (quintile) of the U.S. households gets half of all U.S. income.
3. By contrast, the poorest 20 percent of U.S. households get less than 4 percent.

B. Global Inequality
1. As unequal as American incomes are, income disparities are actually greater in many other countries. For example, in South Africa the richest tenth of the families receive 51% of that nation's income whereas in the United States the richest tenth of the families receive 30 percent of our country's income.
2. **World View: Income Share of the Rich**
   The FOR WHOM question is reflected in the distribution of income. Although the U.S. distribution is very unequal, inequalities loom even larger in most Third World countries. This World View provides bar chart data comparing share of total income received by the top tenth of income earners in the U.S. to the same group in several other nations.
3. As we saw earlier, GDP per capita in developing nations is far below U.S. GDP per capita. Consequently, even poor people in the United States receive more goods and services than the average household in most low-income countries.

V. The Economy Tomorrow: The United Nations Agenda

1. Nearly 3 billion people still live in abject poverty with incomes of less than $3 a day, more than a sixth of the world's population is illiterate, nearly half with no access to sanitation, and a fifth chronically undernourished.
2. In 2015, the U.N. adopted a list of 17 goals for sustainable development and a 15-year deadline to reach those goals. This list of goals includes ending world poverty, eliminating world hunger, reducing inequalities of race, gender, and income, protecting the environment, and slowing climate change.
3. The rich nations of the world have the resources to eliminate global poverty. Because people in rich nations have aspirations for a higher standard of living, they are typically unwilling to part with the resources needed to eliminate world poverty and hunger.
4. Poor nations often cannot mobilize the resources needed to accelerate economic growth because their governments are often corrupt and self-serving. This corruption discourages the investment that poor nations need. A better mix of market-based and government-directed policies is a prerequisite for ending global poverty.

IN-CLASS DEBATE, EXTENDING THE DEBATE, AND DEBATE PROJECTS

In-class Debate

Should the government require people who have the academic ability to go to college?

For each side of the question list three strong arguments. Use the following concepts from the chapter at least once

Human capital
Factors of production
Productivity
GDP
Externalities

Teaching notes

Sample answers

No
1) An increase in the number of people going to college will increase the demand for college education and increase the price of college for everyone. However, the return to education (wages) may not increase; in fact it may decrease because more people have the education. This is a negative **externality** of having more people go to college.

2) While the **human capital** of the population would increase, initially GDP may not increase because some people who would have gone to work and produced output are now in college.

3) While the government should provide or support the opportunity for people who have the ability and want to attend college, forcing people to attend college is an intrusion into individual freedom of choice and this should not be the role of the government.

Yes
1) An increase in the number of people attending college will increase the **human capital** in the economy. An increase in **human capital** supports increases in **productivity** of labor, a primary factor of production.

2) Increases in **productivity** are directly related to increases in **GDP**. Increasing human capital makes all **factors of production** more productive.

3) Looking at the international data, there is a direct relationship between increases in **human capital** and increases in **economic growth**.

Extending the Debate

Should we tax the rich more and give to the poor?

Taxes are a primary tool for redistributing income from the wealthy to lower income earners. The economic impact of the redistribution of income is a highly debated topic and arguments are generally formed in the Tax Reduction/Increase debates.

The following two sites look at world income distribution and provide a comparison over time:
- https://www.globalpolicy.org/social-and-economic-policy/global-injustice-and-inequality/inequality-of-wealth-and-income-distribution.html
- http://www.imf.org/external/pubs/ft/weo/2007/02/

Data for the U.S. are also available from the Census Bureau at: http://www.census.gov. Search for income distribution.

From the Heritage Foundation, a conservative think tank, there are two articles that address the impact of tax changes:
- https://www.heritage.org/taxes/report/cbo-report-distribution-income-and-taxes-shows-taxes-matter
- https://www.heritage.org/taxes/commentary/why-adding-new-top-income-tax-rate-bad-idea

Teaching notes

After students have answered individually, post signs on walls of the room labeled with each choice. Ask students to stand up and move to the part of the room representing their position. Call on individual students to explain their position. Announce that students may shift position if they change their minds based on student comments.

Ask students to pair with someone who has the same position. Together they might write a paragraph explaining their position.

Follow with a cooperative controversy.

Format: Pairs combine into groups of four with one pair on each side of the debate. One pair reads their reasons while the other side listens. Then reverse roles so that the other pair reads their reasons. Each group of four selects the strongest argument on each side.

Or, follow with an individual writing assignment.

Debate project

Productivity

Productivity in the United States has changed drastically in the last thirty years. There is a debate among economists as to the causes of the changes in productivity as well as the relationship with other economic variables.
Key questions:

- How is productivity measured?
- What has been the annual average productivity in the U.S. for the last 30 years?
- What are the issues associated with changes in productivity?
- How can the government affect productivity?

The Bureau of Labor Statistics collects the data and calculates various measures of productivity. You can find more information at: http://www.bls.gov/bls/productivity.htm.

Additional data can be found at:

http://www.ny.frb.org/research/data_indicators/index.html

The following two articles from the Federal Reserve discuss productivity changes occurring today.

"Is the United States Losing its Productivity Advantage?"
http://www.newyorkfed.org/research/current_issues/ci13-8.pdf

"The Sources of the Second Surge of U.S. Productivity and Implications for the Future,"
http://www.federalreserve.gov/newsevents/speech/bernanke20060831a.htm

PRINT MEDIA EXERCISE

Chapter 2
The U.S. Economy

Name:
Section:
Grade:

Find an article that provides new data on the GDP, per capita GDP, and percentage change in GDP, productivity, or income quintiles. Use the article you have found to fulfill the following instructions and questions.

1. Mount a copy (do not cut up newspapers or magazines) of the article on a letter-sized page. Make sure there is room at the bottom of the article to write the answers to the questions.

2. Underline the word, phrase, or sentence (no more than a sentence) that mentions the specific data you have decided to examine.

3. In the space below the article, write which one of the basic economic questions – WHAT, HOW, or FOR WHOM – the data in the article are best suited to answer.

4. Circle the passage (no more than a sentence) that indicates the interpretation and context for the data given in the article.

5. The data in the article should be measuring one of the following concepts:
   - Output
   - Productivity
   - Standard of living
   - Income distribution
   - Economic growth
   - Share of economy

6. Are your answers to numbers 3 and 5 consistent? Briefly explain in the space below the article any inconsistency.

7. In the remaining space below your article, indicate the source (name of newspaper or magazine), title (newspaper headline or magazine article title), date, and page for the article you have chosen. Use this format:

   Source: ______________________ Date: ____________ Page:_________________
   Headline: ____
   If this information also appears in the article itself, circle each item.

8. Neatness counts.

Professor's Note

Learning Objective for Media Exercise

To show the student how the data introduced in Chapter 2 are actually used. Also, to encourage the students to recognize the questions the media are trying to answer and to judge the appropriateness of the media's use of the data to answer those questions.

Suggestions for Correcting Media Exercise

1. Look for the proper matching of basic economic questions, concepts, and data.

Questions	Concept	Data
WHAT	Output	GDP
	Standard of Living	per capita GDP
	Economic Growth	percentage change in GDP
HOW	Productivity	input/output, GDP share
FOR WHOM	Income distribution	income quintiles, GDP share

   The prime focus should be on the student's correct matching of the data to the questions that the data are supposed to help answer.

2. The students are likely to circle sentences that have little to do with the data that have been presented. Since they could have chosen any article they wanted, the lack of relevance to the data is their fault, not the articles.

3. When an article uses data incorrectly, the students should catch the mistake. The mistakes can provide a very useful and credible lecture opportunity.

Likely Student Mistakes and Lecture Opportunities

1. From a class of thirty students there are likely to be one or two cases where the article draws the incorrect interpretation or tries unsuccessfully to answer one of the basic questions using macroeconomic data.

2. Several students will mismatch data with the questions (WHAT, HOW, FOR WHOM) that the data can answer. It may be helpful to show them that the chapter is explicitly organized around these questions.

SUPPLEMENTARY RESOURCES

For two politically-different but each highly-readable guides to the US economy see:

Heintz, James, *The Ultimate Field Guide to the US Economy: A Compact and Irreverent Guide to Economic Life in America*. New Press, 2000.

Stein, H., and Murry Foss, A *New Illustrated Guide to the American Economy: A Hundred Key Issues*, American Enterprise Institute, Washington, D.C., 1995.