

# PAGE ONE Economics

the back story on front page economics

CLASSROOM EDITION

## **“What Are the ‘Ingredients’ for Economic Growth?”**

**September 2013**

*An informative and accessible economic essay with a classroom application.*

*Includes the full version of the Page One Economics Newsletter,  
plus questions for students and an answer key for classroom use.*

**Common Core Standards (see page 17)**

**econlowdown**  
click. teach. engage.

**Scott A. Wolla**

***Economic Education Group of the Federal Reserve Bank of St. Louis***

# PAGE ONE Economics

the back story on front page economics

NEWSLETTER

September ■ 2013

---

## What Are the “Ingredients” for Economic Growth?

Scott A. Wolla, Senior Economic Education Specialist

*“Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction.”—Douglass North<sup>1</sup>*

The 2007-09 recession was painful on many levels, and the economy’s recovery has been slow and uneven. This period of slower-than-expected growth has contributed to a longer-running conversation among economists and policymakers about economic growth. More specifically: What causes economic growth? And how can countries encourage faster growth?

First, we need to know why growth is important. **Economic growth** is an increase in the amount of goods and services that an economy produces. Economic growth results in rising wages and higher standards of living for citizens (measured as increases in real gross domestic product [GDP] per capita); it allows a society to increase its consumption of goods and services. We can think of the economy as a pie. One way to get more of some good or service, say health care, is to allocate resources differently. If we slice the pie into different-sized pieces, a bigger health care slice (more spending on health care) means a smaller education slice (less spending on education) because the pie is only so big.

Economic growth can also be discussed as an increase in the **productive capacity**, or **potential output**, of an economy. Using this thinking, rather than resizing the individual slices, economic growth leads to growing the size of the entire pie, so that over time each person receives a bigger slice without redistributing resources. In short, economic growth reduces the sting of **scarcity**—the condition that exists because there are not enough resources to produce everyone’s wants. Scarcity forces individuals and society to make choices about how to best allocate resources. Of course, every choice involves an **opportunity cost**, the next-best alternative given up as the result of a decision. So, while scarcity requires trade-offs between health care and education, economic growth allows for more of both.

### Economic Expansion or Economic Growth?

When economists think about the causes of economic growth and strategies for promoting growth, they think beyond the fiscal and monetary policies that are designed to buoy the economy temporarily during an economic downturn to consider the conditions that help promote long-term growth. During an economic recession, an economy might be operating with a larger-than-average amount of unemployed resources. That is, the economy is operating below its productive capacity. Policies designed to push the economy back toward its productive capacity—thereby increasing the pace of economic activity—might be used during an economic recession to move the economy back toward its potential. The movement back toward potential is often referred to as economic expansion. Alternately, long-run economic growth is an increase in an economy’s productive capacity.

## Where Does Growth Come From?

Three factors can create economic growth: more capital, more labor, and better use of existing capital or labor. The growth that results from increases in capital and labor represents growth due to increases in *inputs*. There are limits to how much accumulating capital helps, and increasing labor also often means more mouths to feed and so (by itself) may not increase the standard of living (real GDP per capita). Sustainable long-run growth is the result of better use of existing resources, increasing economic *output per input* and thereby increasing productivity.

For example, think of the productivity gains that resulted from the use of personal computers and the Internet to complete tax forms. Rather than using pen, paper, and a calculator to complete the forms, tax filers can use sophisticated software programs to retrieve financial data from personal accounts using the Internet, insert the information correctly on complicated tax forms, and complete the complex calculations. The forms can then be filed electronically to expedite the process.

This is just one example of recent gains in productivity resulting from increases in physical capital. Now multiply those relatively small gains by the millions of workers who use increasingly powerful computers and better software. Increasing investment in physical capital allows for continued increases in productivity and economic growth. This is an example of changes in productivity resulting from changes in inputs; in this case, the input is **physical capital**. Similarly, **human capital**—the knowledge and skills that people obtain through education, experience, and training—is important, and strong educational institutions are vital. A well-educated workforce is generally more productive, providing higher output per worker. Well-educated workers can make the most efficient use of existing technologies. They are also more likely to develop new technologies. Further, a persistent growth in the level of educational attainment will likely lead to growing productive capacity, the key to future economic growth.

While both physical and human capital are important to economic growth, both have their limits and their benefits tend to diminish over time. Knowledge and ideas that lead to better use of existing resources (increasing output per input) are driving forces behind continuing (long-run) economic growth. The innovation resulting from new ideas is key to continued technological progress. Consider the computerized tax-filing example. When a new computer is produced, the inputs required to build it are not much different from a computer built 10 years ago, but today's computer has much larger implications for labor productivity than earlier versions. The computer has improved over time as the result of new knowledge, ideas, and innovations incorporated into the design of its hardware and software. Of course, all of this happens within the institutional structures of an economy, our next topic.

## Institutional Structures that Promote Growth

In addition to productivity-boosting factors such as physical and human capital, economies with high rates of economic growth often share characteristics related to economic institutions that support or reward productive activity. (Notice that “institutions” is used differently in this context than you may have seen before.) When discussing economic growth, we can think of **institutions** as the foundational *rules of the game* noted by Douglass North in the opening quote; they include not only laws and regulations, but also customs and practices. Institutions work through the **incentive** structure in an economy and are important in explaining why some countries experience faster growth than others. Both institutions and the incentives they offer affect improvements in long-term growth.

Some of these institutions might not seem directly related to economics, but institutions clearly have an impact on the potential output of the economy. For example, **patent** protections are examples of laws that ensure that firms developing new technologies are able to profit from them. The firm's profit motive provides the incentive to produce new goods and services, as well as the technologies that benefit society and result in economic growth. Traditionally, people have reasoned that patent protection enables firms to profit from their costly research and development efforts; as a result, they are willing to invest in the first place.<sup>2</sup> In a sense, they incentivize technological progress.

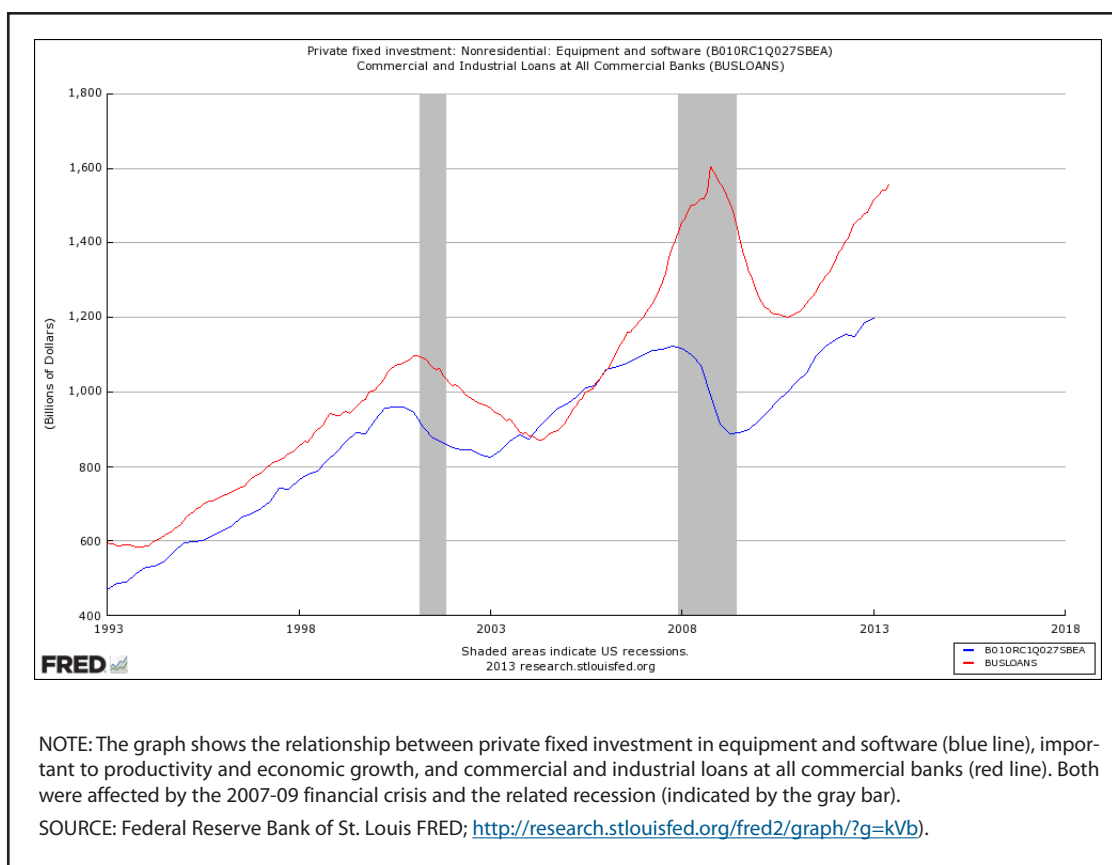
We can also consider the custom of honesty, which enhances the confidence of those conducting economic transactions. If honesty cannot be assumed, economic transactions may be more “costly” to complete. In his lecture accepting the 1993 Nobel Prize, North said that institutions “form the incentive structure of a society and the political and economic institutions, in consequence, are the underlying determinant of economic performance.”<sup>3</sup> So, which institutions foster growth?

First, strong property rights are important. Citizens who feel confident that their private property is secure are more likely to invest in the future. A strong legal infrastructure, supported by the **rule of law**, must exist to create such confidence. The rule of law, as opposed to the rule of man, ensures that legal decisions remain consistent and predictable over time and are not at the mercy of individual political leaders or administrations. In short, strong property rights ensure that private investment and innovation are properly rewarded, which provides the incentive for future productive economic activity.

Second, competitive markets foster efficiency, which promotes growth. Prices signal when goods and services are becoming more or less scarce. Producers and consumers respond. For example, when markets are competitive and flexible, a shortage of bicycles results in higher bicycle prices. The higher price signals producers to supply a greater quantity of the good (more bicycles), and the higher price signals consumers to reduce the quantity of bicycle purchases. Over time, the bicycle shortage is resolved.

Our bicycle example applies to the overall economy: If prices are allowed to change quickly to reflect underlying conditions, markets can adjust. When inflation is high and volatile, price signals become less effective and can result in inefficient production and distribution of goods and services. The Federal Reserve's role in price stability—maintaining a low and stable inflation rate over time—minimizes the distortionary effects of inflation in this process. Free trade extends the benefits of free markets beyond national borders and allows for more competition within industries, which provides additional productivity gains. For example, American car-makers increased their level of efficiency as a result of rising competition from foreign carmakers in the 1970s and 1980s.

Finally, efficient financial institutions facilitate intermediation between savers and borrowers. This means that financial institutions (such as banks, credit unions, stock markets, and bond markets) transform the deposits of savers into loans for borrowers who wish to invest in (among other things) new **capital**, technology, and **infrastructure**—all key ingredients for growth. For example, a bank might bundle the deposits of many savers to lend to a small business that wants to invest in new technology. Shin finds that countries with well-developed financial markets allocate resources more effectively than countries with less-well-developed financial markets. As such, well-developed financial markets are an essential ingredient for long-run economic growth.<sup>4</sup> These interactions among firms comprise what Federal Reserve Chairman Ben Bernanke has called “the financial infrastructure or the financial plumbing.”<sup>5</sup>



The importance of these institutions became apparent during the 2007-09 financial crisis, when credit markets nearly froze and the economy slid into a deep recession. Bank lending peaked at \$1.6 trillion in October 2008 but dropped to \$1.2 trillion by October 2010. By June 2013, bank lending reached \$1.56 trillion, nearly back to the peak level reached before the financial crisis (see the chart). When credit markets stop functioning, modern economies do not usually grow. As such, the role of central banks as lenders of last resort is key to maintaining confidence in an economy's financial infrastructure.

## Conclusion

In the end, to paraphrase Nobel Laureate Robert Lucas Jr., it is difficult to minimize the importance of economic growth. The role of incentives is vital in this regard. Incentives matter—a lot. The decisions to save, invest, attend college, start a business, hire an additional worker, buy a piece of equipment, or develop a new idea depend on a multitude of factors. Among the most important factors is the role of well-designed institutions. How a nation designs and operates its economic and political infrastructure is crucial because such infrastructure provides the proper incentives for individuals, firms, and policymakers to undertake activities that generate rising standards of living over time. ■

## NOTES

<sup>1</sup> North, Douglass C. *Institutions, Institutional Change, and Economic Performance*. New York: Cambridge University Press, 1990, p. 3. Douglass North is an economist and the co-recipient of the 1993 Nobel Prize in Economic Sciences.

<sup>2</sup> Emerging research calls the conventional wisdom on patents into question. For example, Boldrin and Levine find “no empirical evidence that [patents] serve to increase innovation and productivity” (p. 1). See Boldrin, Michele and Levine, David. “The Case Against Patents.” Working Paper No. 2012-035A, Federal Reserve Bank of St. Louis, 2012; <http://research.stlouisfed.org/wp/2012/2012-035.pdf>.

<sup>3</sup> North, Douglass C. “Economic Performance through Time.” Nobel Prize Lecture, December 9, 1993; [http://www.nobelprize.org/nobel\\_prizes/economic-sciences/laureates/1993/north-lecture.html](http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1993/north-lecture.html).

<sup>4</sup> Shin, Yongseok. “Financial Markets: An Engine for Economic Growth.” Federal Reserve Bank of St. Louis *Regional Economist*, July 2013, 21(3), pp. 4-9; [http://www.stlouisfed.org/publications/pub\\_assets/pdf/re/2013/c/financial\\_markets.pdf](http://www.stlouisfed.org/publications/pub_assets/pdf/re/2013/c/financial_markets.pdf).

<sup>5</sup> Bernanke, Ben S. “Financial Reform to Address Systemic Risk.” Speech to the Council on Foreign Relations, Washington, DC, March 10, 2009; <http://www.federalreserve.gov/newsevents/speech/bernanke20090310a.htm>.

## GLOSSARY

**Capital:** Resources and goods made and used to produce other goods and services. Examples include buildings, machinery, tools, and equipment.

**Economic growth:** An increase in the amount of goods and services an economy produces.

**Human capital:** The knowledge and skills that people obtain through education, experience, and training.

**Incentives:** Perceived benefits that encourage certain behaviors.

**Infrastructure:** The capital goods usually provided by the public sector for use by citizens and firms. Examples include highways, bridges, municipal water systems, and airports.

**Institutions:** The “rules of the game” that structure economic incentives.

**Opportunity cost:** The value of the next-best alternative when a decision is made; it’s what is given up.

**Patent:** A license that gives the inventor of a new product the exclusive right to sell it for a specific period of time.

**Physical capital:** Goods that have been produced and are used to produce other goods and services. They are used over and over again in the production process.

**Potential output:** What an economy can produce if it is operating at maximum sustainable employment, where unemployment is at its natural rate.

**Productive capacity:** The maximum output an economy can produce with the current level of available resources.

**Rule of law:** Concept that holds that government and its officers must exercise their power according to established regulations and legal principles.

**Scarcity:** The condition that exists because there are not enough resources to produce everyone’s wants.

*Page One Economics Newsletter* from the Federal Reserve Bank of St. Louis provides an informative, accessible economic essay written by our economic education specialists, who also write the accompanying classroom edition and lesson plan. The newsletter and lesson plans are published 9 times per year, January through May and August through November.

Please visit our website and archives <http://research.stlouisfed.org/pageone-economics/> for more information and resources.

*Views expressed do not necessarily reflect official positions of the Federal Reserve System.*

Name \_\_\_\_\_ Period \_\_\_\_\_

Federal Reserve Bank of St. Louis *Page One Economics Newsletter*:  
**"What Are the 'Ingredients' for Economic Growth?"**

**After reading the article, answer the following questions.**

1. Why is economic growth important?
2. Describe the difference between economic expansion and long-run economic growth.
3. Describe the difference between growth that occurs as a result of an increase in inputs and growth that occurs as a result of an increase in output per input.
4. How do the following institutions promote growth?
  - Property rights
  - Competitive markets
  - Efficient financial institutions

## Teacher's Guide

### Federal Reserve Bank of St. Louis *Page One Economics* Newsletter: "What Are the 'Ingredients' for Economic Growth?"

After reading the article, answer the following questions.

**1. Why is economic growth important?**

Economic growth results in rising wages and higher standards of living for citizens (measured as increases in real gross domestic product [GDP] per capita). Economic growth allows a society to increase its consumption of goods and services.

**2. Describe the difference between economic expansion and long-run economic growth.**

Economic expansion is increasing the pace of economic activity to move an economy back toward its potential. This type of movement is likely to occur as an economy recovers from an economic downturn. Long-run economic growth is an increase in an economy's productive capacity.

**3. Describe the difference between growth that occurs as a result of an increase in inputs and growth that occurs as a result of an increase in output per input.**

With the acquisition of more resources/inputs, more goods and services can be produced. Growth can also occur when existing resources/inputs are used more efficiently, which increases output per input, or productivity.

**4. How do the following institutions promote growth?**

- **Property rights**

Strong property rights ensure that private investment and innovation are properly rewarded, which provides the incentive for future productive economic activity.

- **Competitive markets**

Competitive markets and flexible prices ensure that markets can adjust, and free trade opens industries to additional competition, which leads to increases in efficiency and productivity.

- **Efficient financial institutions**

Financial institutions transform the deposits of savers into loans for borrowers, which are used to invest in capital, technology, and infrastructure—all key ingredients for growth. Research finds that countries with well-developed financial markets allocate resources more effectively, a key to economic growth.



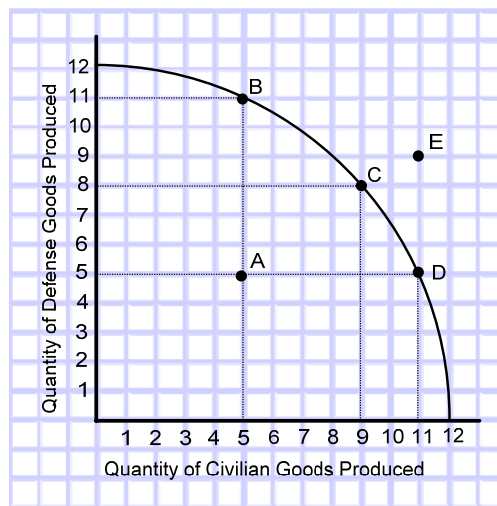
## For Further Discussion

Review the following or distribute the handout to your students; then lead a classroom discussion on the production possibilities frontier. Use the glossary (see the Visual) for vocabulary support.

### Three Lessons Using the Production Possibilities Frontier

The **production possibilities frontier** (PPF) is a useful tool for understanding economic choices made by societies. It is also a useful model for understanding economic growth.

The PPF is a graph that shows how a country might allocate scarce resources in its production of goods and services. In the following discussion, we assume that consumption of goods and services in the economy is limited to what it produces. In other words, the economy's production equals its consumption. For simplicity, the model shows the production of two types of goods and services—defense goods (military goods and services produced for national defense; for example, tanks, satellites, and warplanes)—and civilian goods (goods and services produced for consumption for nonmilitary purposes; for example, cars, education, and medical care)—we might draw a graph that looks like Figure 1.



**Figure 1**

The curved line is the frontier and represents the maximum quantity of defense goods and civilian goods the economy can produce with its currently available resources. Economic resources are land (natural resources), labor (workers), and capital (goods used to produce other goods and services). For example, this society might choose to allocate resources in a combination reflected by point “B,” which shows a large quantity of defense goods produced (11 units) and a much smaller quantity of civilian goods produced (5 units). This society would enjoy a greater sense of security but have fewer goods and services available for consumption by its civilian population. Or, the society might choose to produce the combination reflected by point “D,” which shows a larger quantity of civilian goods produced (11 units) and a much smaller quantity of defense goods (5 units). Now, the society has chosen to forgo some national security in exchange for a higher level of consumption. In both cases, the society is producing on the “frontier,” which indicates that the society is using all its available resources and producing at an efficient level.

Alternatively, the society might choose point “A,” which indicates a much smaller production of both defense goods and civilian goods (5 units of each). The choice of a point inside the PPF shows the resources in the economy are underutilized; the society is using fewer resources than optimal. This might occur during an economic recession when some factories sit idle and some workers are unemployed.

## Lesson One: Scarcity and Opportunity Cost

The PPF is a useful tool to visualize the economic concepts of scarcity and opportunity cost. **Scarcity** is the condition that exists because there are not enough resources to produce everyone's wants. For example, imagine a society that chooses point "D" as its current allocation of resources between defense goods and civilian goods (see Figure 1). If this society decides more security is needed (greater spending on defense goods by moving to point "B"), this choice would require giving up 6 units of civilian goods to gain 6 units of defense goods. Why? Because of scarcity, the resources used to produce defense goods are not available for the production of civilian goods. The civilian goods given up as a result of this choice constitute an **opportunity cost**—the value of the next-best alternative when a decision is made; it's what is given up.

## Lesson Two: Economic Growth Means More of Both Goods

The PPF is also a useful tool for discussing the benefits of **economic growth**. In the previous model, we learned that the frontier represents maximum production with current resources. In this case, we are looking at an economy's production of goods and services; production point "E" is not possible with current resources (Figure 2).

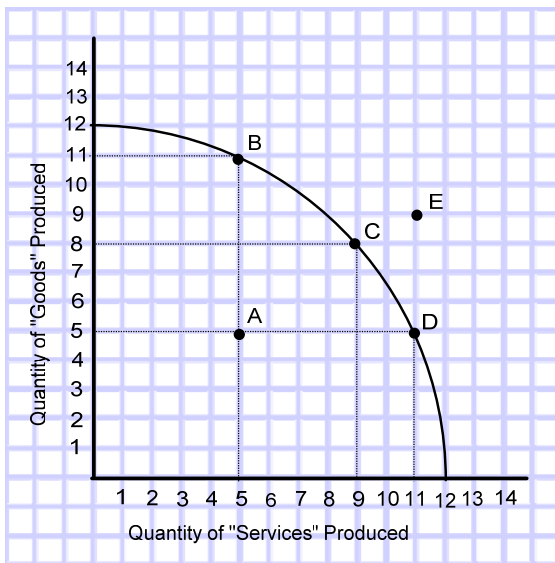


Figure 2

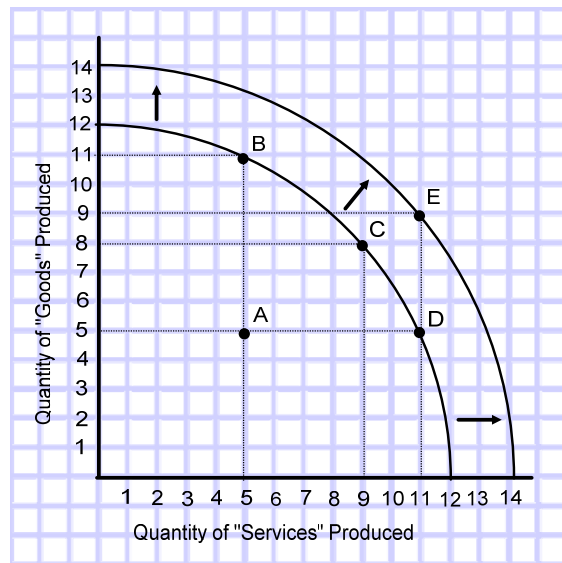


Figure 3

Alternatively, the frontier itself can shift outward (Figure 3). This shift represents **economic growth** that creates rising opportunities, living standards, and incomes for people. This shift of the PPF representing growth can result from increases in inputs or increases in outputs per input. An increase in inputs is simply an increase in the number of available resources—more land (natural resources), labor, or capital. Sustainable long-run growth is the result of better use of existing land, labor, and capital—increasing economic *output per input* through technological progress and innovation. This increase in output per input is measured as an increase in productivity. The outward shift of the frontier made possible by economic growth makes production at point "E" possible.

### Lesson Three: Economic Expansion or Economic Growth?

During recessions, the economy may operate with an above-average number of unemployed people. That is, the economy is operating below its **productive capacity**; this is indicated by a point inside the PPF, such as point "A" in Figure 4. Monetary policies leading to lower interest rates or fiscal policies—such as tax cuts or increases in government spending—designed to push the economy back toward the PPF might be used in recessions to move the economy back toward its potential, such as point "B." This move toward the economy's potential is often referred to as *economic expansion*. Many economists explain the difference between economic expansion and long-run economic growth as follows: Economic expansion moves production capacity toward the previously established PPF; economic growth shifts the PPF outward. This makes production at point "C" possible (Figure 5). Fiscal and monetary policies can be used to support economic expansion, but economic growth that shifts the PPF is a result of increases in resources and productivity and is supported by economic **institutions** that promote growth as described in the essay.

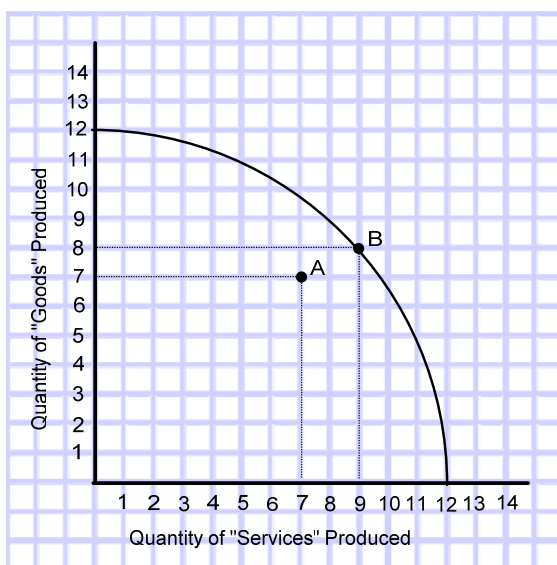


Figure 4

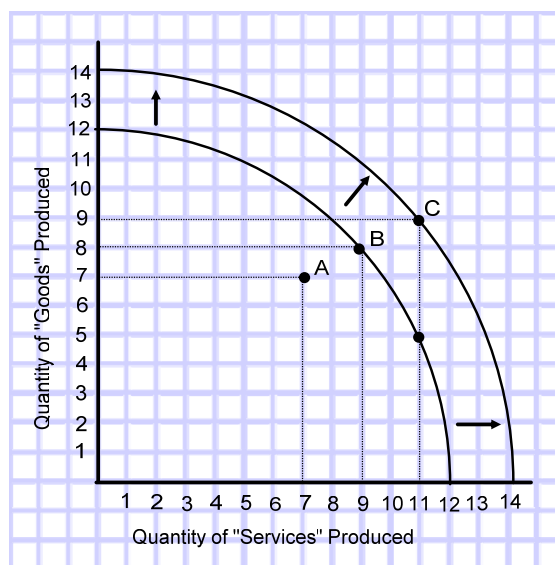
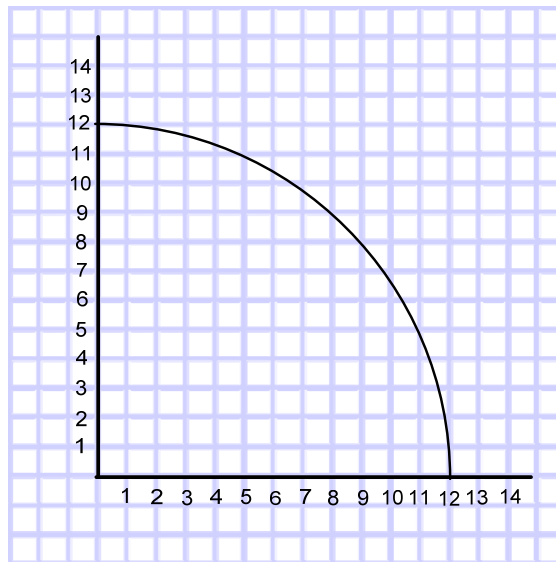


Figure 5

## Assessment

Use your knowledge of the lessons above to complete the assignment below.

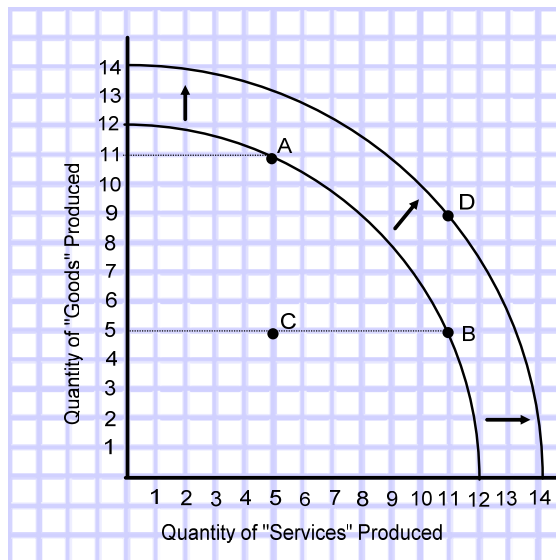
1. Label the PPF to show an economy using its resources to produce (i) goods and (ii) services.
2. Plot point "A" to show the economy producing more goods than services.
3. Plot point "B" to show the economy shifting to a higher production of services.
4. Plot point "C" to show the production of goods and services during an economic recession.
5. Draw a new PPF that reflects economic growth.
6. Plot point "D" to show the production of goods and service after economic growth.



---

## Answer Key

The PPF below provides an example of possible answers.



## Visual: Glossary

**Economic growth:** An increase in the amount of goods and services an economy produces.

**Institutions:** The “rules of the game” that structure economic incentives.

**Opportunity cost:** The value of the next-best alternative when a decision is made; it’s what is given up.

**Production possibilities frontier (PPF):** A graphic representation of output combinations that can be produced given an economy’s available resources and technology.

**Productive capacity:** The maximum output an economy can produce with the current level of available resources.

**Scarcity:** The condition that exists because there are not enough resources to produce everyone’s wants.

# Handout

Name \_\_\_\_\_ Period \_\_\_\_\_

## Three Lessons Using the Production Possibilities Frontier

The **production possibilities frontier** (PPF) is a useful tool for understanding economic choices made by societies. It is also a useful model for understanding economic growth.

The PPF is a graph that shows how a country might allocate scarce resources in its production of goods and services. In the following discussion, we assume that consumption of goods and services in the economy is limited to what it produces. In other words, the economy's production equals its consumption. For simplicity, the model shows the production of two types of goods and services—defense goods (military goods and services produced for national defense; for example, tanks, satellites, and warplanes)—and civilian goods (goods and services produced for consumption for nonmilitary purposes; for example, cars, education, and medical care)—we might draw a graph that looks like Figure 1.

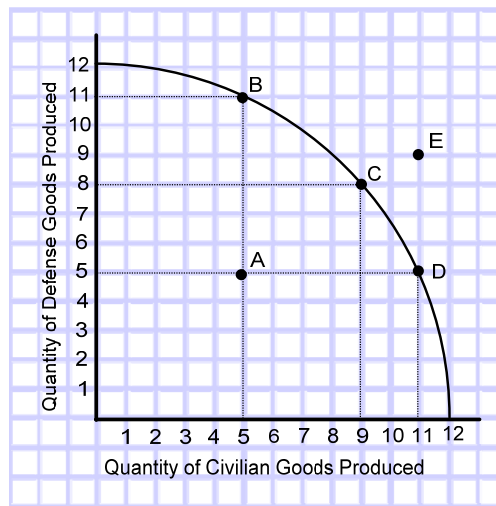


Figure 1

The curved line is the frontier and represents the maximum quantity of defense goods and civilian goods the economy can produce with its currently available resources. Economic resources are land (natural resources), labor (workers), and capital (goods used to produce other goods and services). For example, this society might choose to allocate resources in a combination reflected by point “B,” which shows a large quantity of defense goods produced (11 units) and a much smaller quantity of civilian goods produced (5 units). This society would enjoy a greater sense of security but have fewer goods and services available for consumption by its civilian population. Or, the society might choose to produce the combination reflected by point “D,” which shows a larger quantity of civilian goods produced (11 units) and a much smaller quantity of defense goods (5 units). Now, the society has chosen to forgo some national security in exchange for a higher level of consumption. In both cases, the society is producing on the “frontier,” which indicates that the society is using all its available resources and producing at an efficient level.

Alternatively, the society might choose point “A,” which indicates a much smaller production of both defense goods and civilian goods (5 units of each). The choice of a point inside the PPF shows the resources in the economy are underutilized; the society is using fewer resources than optimal. This might occur during an economic recession when some factories sit idle and some workers are unemployed.

## Lesson One: Scarcity and Opportunity Cost

The PPF is a useful tool to visualize the economic concepts of scarcity and opportunity cost. **Scarcity** is the condition that exists because there are not enough resources to produce everyone's wants. For example, imagine a society that chooses point "D" as its current allocation of resources between defense goods and civilian goods (see Figure 1). If this society decides more security is needed (greater spending on defense goods by moving to point "B"), this choice would require giving up 6 units of civilian goods to gain 6 units of defense goods. Why? Because of scarcity, the resources used to produce defense goods are not available for the production of civilian goods. The civilian goods given up as a result of this choice constitute an **opportunity cost**—the value of the next-best alternative when a decision is made; it's what is given up.

## Lesson Two: Economic Growth Means More of Both Goods

The PPF is also a useful tool for discussing the benefits of **economic growth**. In the previous model, we learned that the frontier represents maximum production with current resources. In this case, we are looking at an economy's production of goods and services; production point "E" is not possible with current resources (Figure 2).

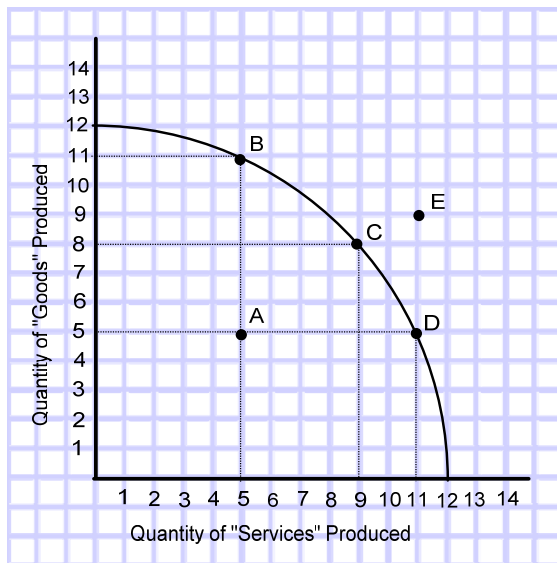


Figure 2

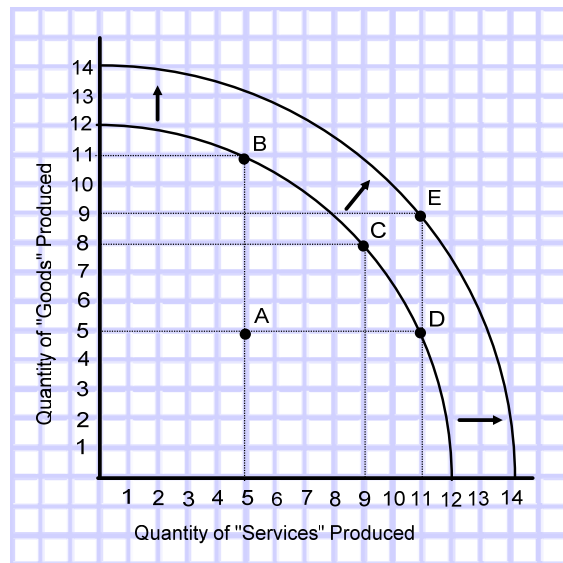


Figure 3

Alternatively, the frontier itself can shift outward (Figure 3). This shift represents **economic growth** that creates rising opportunities, living standards, and incomes for people. This shift of the PPF representing growth can result from increases in inputs or increases in outputs per input. An increase in inputs is simply an increase in the number of available resources—more land (natural resources), labor, or capital. Sustainable long-run growth is the result of better use of existing land, labor, and capital—increasing economic *output per input* through technological progress and innovation. This increase in output per input is measured as an increase in productivity. The outward shift of the frontier made possible by economic growth makes production at point "E" possible.

### Lesson Three: Economic Expansion or Economic Growth?

During recessions, the economy may operate with an above-average number of unemployed people. That is, the economy is operating below its **productive capacity**; this is indicated by a point inside the PPF, such as point "A" in Figure 4. Monetary policies leading to lower interest rates or fiscal policies—such as tax cuts or increases in government spending—designed to push the economy back toward the PPF might be used in recessions to move the economy back toward its potential, such as point "B." This move toward the economy's potential is often referred to as *economic expansion*. Many economists explain the difference between economic expansion and long-run economic growth as follows: Economic expansion moves production capacity toward the previously established PPF; economic growth shifts the PPF outward. This makes production at point "C" possible (Figure 5). Fiscal and monetary policies can be used to support economic expansion, but economic growth that shifts the PPF is a result of increases in resources and productivity and is supported by economic **institutions** that promote growth as described in the essay.

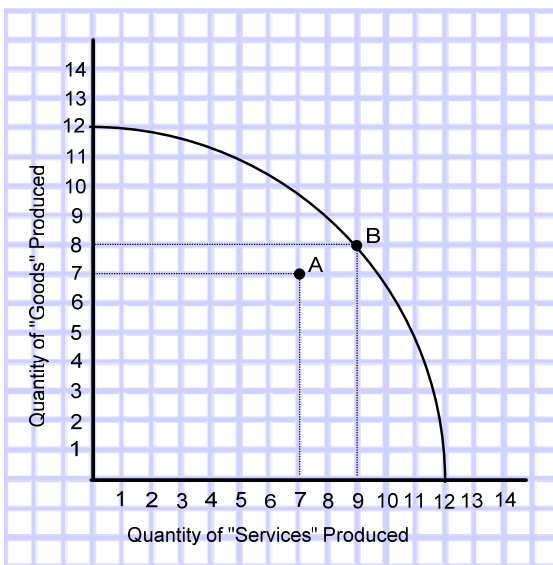


Figure 4

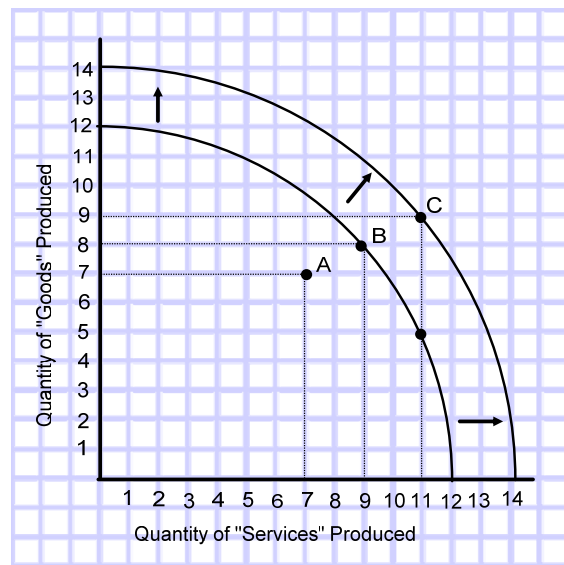


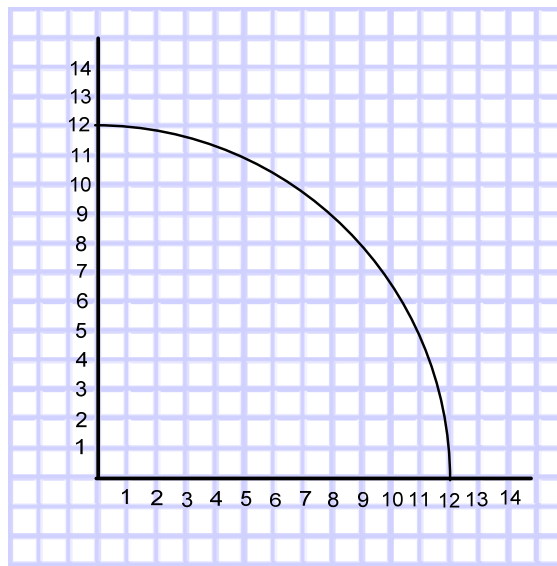
Figure 5



## Assessment

Use your knowledge of the lessons above to complete the assignment below.

1. Label the PPF to show an economy using its resources to produce (i) goods and (ii) services.
2. Plot point "A" to show the economy producing more goods than services.
3. Plot point "B" to show the economy shifting to a higher production of services.
4. Plot point "C" to show the production of goods and services during an economic recession.
5. Draw a new PPF that reflects economic growth.
6. Plot point "D" to show the production of goods and service after economic growth.



## **Common Core State Standards**

### **Grades 6-12 Literacy in History/Social Studies and Technical Subjects**

- **Key Ideas and Details**

RH.11-12.1: Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

RH.11-12.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

- **Craft and Structure**

RH.11-12.4: Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines *faction* in *Federalist* No. 10).