



# Comparative Advantage and the Gains from Trade

**GRADE LEVEL: 9TH–12TH GRADES**

**TIME ESTIMATE: 50-MINUTE CLASS PERIOD**

## Lesson Overview and Introduction

In this lesson, we will explore one of the fundamental concepts of economics and international trade—comparative advantage, which is the production of a good or service at a lower opportunity cost than another country. One misconception that many students have about trade is that economic transactions are a zero-sum game, with a winner and a loser. However, economic theory holds that voluntary transactions are a win-win scenario; this principle applies not only to individuals, but also to trade between countries. Even if a country has an absolute advantage in producing all goods and services, trade can still be mutually beneficial through comparative advantage. By specializing in the production of goods and services with lower opportunity costs, countries can increase efficiency and productivity, leading to greater economic growth and development.



First, students will learn the difference between absolute advantage and comparative advantage, and how the latter allows for mutually beneficial trade between countries. They will explore the concept of specialization, which occurs when countries focus on producing the goods and services in which they have a comparative advantage, and how this leads to increased efficiency and productivity. The class will examine how comparative advantage can lift countries out of poverty by enabling them to trade with other countries and access a wider range of goods and services. However, they will also consider some of the potential negative consequences of trade, including job losses and environmental concerns. By the end of this lesson, students will understand how countries can benefit from specializing in producing goods and services in which they have a comparative advantage, leading to gains from trade and economic growth.

## Objectives

- Students will understand the difference between absolute and comparative advantage.
- Students will understand how countries and businesses decide what products to specialize in.
- Students will understand the gains from international trade based on comparative advantage.
- Students will understand not only the benefits but also the drawbacks of international trade.

## Vocabulary

- Absolute advantage
- Comparative advantage
- Opportunity cost

## Materials

- Printed copy of this article from the Cato Institute: "[The \(Updated\) Case for Free Trade](#)"

## Warm-Up (5 minutes)

Begin by asking the class a few questions and displaying some visuals.

- Ask students a few questions about goods that are likely the result of international trade, such as:
  - Did anyone drink coffee or tea today?
  - Did anyone eat any fruit today?
  - Where were your shoes or shirts made?
  - Where do you think all the components in a cell phone or computer come from? Where were they assembled?

- Show [this infographic](#) from Visual Capitalist and point out the top export from your state. Scroll down and show your state's most unique export. Next, show [this second image](#) from Visual Capitalist, which breaks down the dollar value of U.S. exports (more than \$1 trillion) by state. Finally, scroll down and show what types of goods are exported and the top U.S. exports by country of destination.

## Activity Part One (15 minutes)

**Step One:** Ask the class, "Now that we know trade can be beneficial, how can countries and businesses decide what products to produce?" Point out that even if one country can outperform another country in producing all goods and services, it still can be beneficial to trade; in fact, it can raise the standard of living in both countries. Key takeaway: Even if one country is better at everything, it can still find trading partners to trade with that will make both countries better off than before trade. In fact, the more different a country is from another, the more it will benefit from trading.

Define absolute and comparative advantage

**Absolute advantage:** The ability to produce more output with the same amount of input, or the ability to produce the same output with fewer inputs.

**Comparative advantage:** The ability of a country to produce a good or service at a lower opportunity cost than another country.

Read to the class or discuss a real-world example of absolute advantage and comparative advantage, such as the following:

Imagine that a lawyer can type 100 words a minute and earns \$200 for legal services. Even though the lawyer can type 100 words a minute, they still choose to hire a secretary who is a slower typer, at 50 words a minute. This decision can be explained by the concepts of absolute and comparative advantage.

Remember, absolute advantage refers to a person's ability to produce more of a given product or service than another person in the same amount of time. In this case, the lawyer has an absolute advantage in typing speed and legal services. However, comparative advantage considers the opportunity cost of producing a particular product or service. The opportunity cost for the lawyer to spend time typing instead of focusing on legal work is much higher than the opportunity cost for the secretary, who earns \$50 an hour and is primarily hired to type. Thus, even though the lawyer is a faster typer, the comparative advantage lies with the secretary, who can produce the same output at a lower opportunity cost. In addition, the lawyer's hourly rate is significantly higher than the secretary's, so it is more cost-effective for the lawyer to delegate typing tasks to the secretary and focus on higher-value legal work. In conclusion, the lawyer has the comparative advantage in legal services and the secretary in typing, despite the lawyer being a faster typer.

**Step Two:** Show [this video clip](#) from Marginal Revolution University (show from the beginning to 6:06). Then discuss the following questions with the class, or have students answer them.

- How does specialization lead to gains from trade, and what are some examples of specialization in different countries around the world?
- How does comparative advantage relate to the concept of opportunity cost, and how can it be calculated?
- How can countries with limited resources or underdeveloped economies benefit from comparative advantage?

### Activity Part Two (15 minutes)

Read the following article from the Cato Institute: "[The \(Updated\) Case for Free Trade.](#)" Discuss as a class, or have students answer the following questions individually or in small groups. Note: Teachers may have students read only the introduction section or may assign the whole article for classes with more advanced students. *Optional:* the article includes some excellent graphs, which you can project to the class while discussing the questions.

- What is the current state of free trade in the United States?
- What are the economic, political, and moral benefits of free trade?
- What is protectionism, and why is it not a viable alternative to free trade?
- How does free trade benefit the poorest and most vulnerable people in the world?
- How can the United States best respond to the rising economic power of China?
- What are some of the criticisms of trade agreements, and how can they be addressed?
- How does free trade promote peace and cooperation, and how does it fit into the liberal international order?

### Activity Part Three (5 Minutes)

Read [this article](#) from The Balance, which discusses the pros and cons of free trade. Have students answer the following questions individually, in small groups, or as a class.

- According to the article, what are some advantages of free trade agreements?
- What are some of the potential drawbacks of free trade agreements, according to the article?
- How can smaller countries be negatively affected by free trade agreements?
- What is a potential effect of free trade agreements on the environment and indigenous populations?

- What are some of the criticisms of NAFTA (the North American Free Trade Agreement), and how does the USMCA (U.S.-Mexico-Canada Agreement) attempt to address them?
- In your opinion, do the advantages of free trade agreements outweigh the disadvantages, or vice versa? Why?

## Extension

**Option 1:** Have students choose an article from the Cato Institute's [Trade Policy page](#) and write a current event report, describing how comparative advantage and the gains from trade are relevant from the article.

**Option 2:** Show the class the [Gapminder tools website](#), and show how the countries that have the highest GDP per capita (and also longer life expectancies) are also mostly open to international trade. You can also highlight China's rapid growth as it began economic reforms focusing on trade in the 1980s and '90s.