International Trade

Everyday Economics

Federal Reserve Bank of Dallas


MARKET

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For centuries, people of the world have traded. From the ancient silk routes and spice trade to modern shipping containers and satellite data transfers, nations have tied their economies to the rest of the world by complex flows of products and services. Free trade, which allows traders to interact without barriers imposed by government, can improve the living standards of people because it reduces prices and increases the variety of goods and services for consumers. It can also create new jobs and opportunities, and it encourages innovative uses of resources. However, even though free trade can benefit an economy as a whole, specific groups may be hurt. While certain sectors will experience job gains, others will face job losses. Still, societies throughout history have found that the benefits of international trade outweigh the costs.

Why Trade?

As consumers, all of us have an interest in trading with other countries. We often are unaware of trade's influence on product prices and the quality and availability of the goods we buy. But we all benefit from the greater abundance and variety of products and the lower prices that trading with others makes possible. Without trade, countries become isolated. The quality of their goods and services lags behind that of countries that do trade.

Every time we walk into a store, restaurant, theater or any other place of business to buy something, we trade—whether the goods we are acquiring were produced across the street or across the globe. The key to understanding trade is to remember why it takes place. The reason people trade, regardless of where they live, is because they believe they will be better off by trading. When we consider the alternative—each of us producing everything for ourselves—trade simply makes more sense.

Trade is beneficial because it allows people to specialize, or concentrate their work in the type of production that they do best. When people specialize by becoming a carpenter, a farmer, a doctor, a teacher or any of the thousands of other professions in our economy, they produce a good or service and trade for everything else that they need. In the same way, countries specialize in the production of goods that they can make most efficiently and trade with other countries for different goods and services.

Absolute and Comparative Advantage

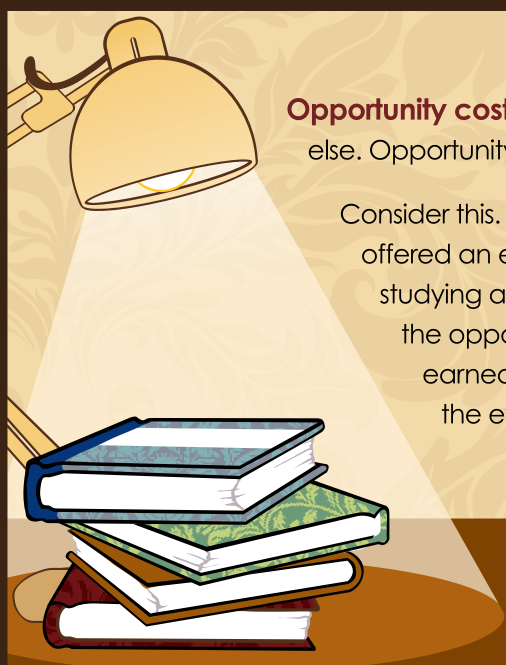
The benefits of specialization and trade can be explained using the economic principles of absolute and comparative advantage. Remember that every society has resources that it uses to produce goods and services. *Absolute advantage* is the ability to produce a good or service using fewer resources than another producer. Consider two countries that want to make the same product, and labor is the only resource required to make it. If one country's production is so efficient that it can make this product with fewer hours of labor, the country has an absolute advantage in its production.

Even when one country has an absolute advantage in producing almost everything, there is still the potential for beneficial trade. That's because different producers have different opportunity costs. Using resources to produce a particular good or service means that those resources cannot be used to produce something else. When a factory is used to make cars, the machines are not being used to make tractors. Those tractors that were not produced are the opportunity cost of the cars that were manufactured.

Comparative advantage is the ability to produce a good or service at a lower opportunity cost than another producer. When the opportunity cost of producing a good is lower in one country than in another, the first country is said to have a comparative advantage in producing that good.

Think about two farms and the families that live on them. Both families want to eat beans and corn. On one farm, the farmer has found that each acre of cultivated land can produce 10 bushels of beans or 20 bushels of corn. The opportunity cost of 10 bushels of beans is 20 bushels of corn. On the other farm, each acre can produce 10 bushels of beans or 10 bushels of corn. If each farm used half an acre to grow beans and half an acre to grow corn, the first farm would grow 5 bushels of beans and 10 bushels of corn, while the second farm would produce 5 bushels of each. Together, they have grown 10 bushels of beans and 15 bushels of corn.

But what would happen if they specialized according to their comparative advantage? Since the second farm has a lower opportunity cost for



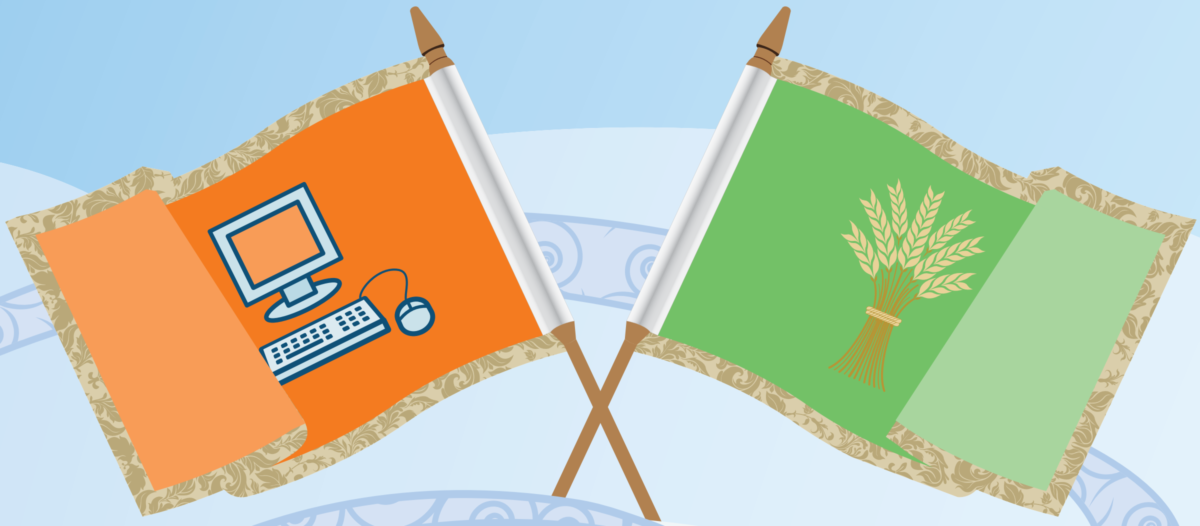
Opportunity cost is the next-best alternative that must be given up to obtain something else. Opportunity costs arise when you make choices.

Consider this. You have a major test tomorrow that you need to study for, but you are offered an extra shift at work. The opportunity cost of working is the time you lose for studying and the higher grade that you might have earned. If you decide to study, the opportunity cost of your preparation is the income that you could have earned by working. While there are many other things that you could do during the evening, these are the two most important to you.

Productive resources include human resources (or labor), natural resources (or land), manufactured resources (or capital) and entrepreneurial ability.

growing beans, it should specialize and use the entire acre to grow beans. If the first farm specialized in corn, between the two farms they could produce 10 bushels of beans and 20 bushels of corn. The extra corn production was possible because the farmers specialized in their area of comparative advantage.

Every country's unique combination of productive resources determines what goods and services its people can produce most efficiently. Through trade, countries exchange goods they produce most efficiently for goods other countries produce most efficiently. It can be a winning situation for all involved.

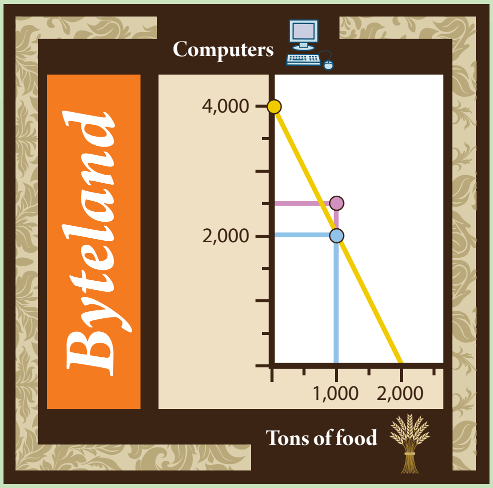


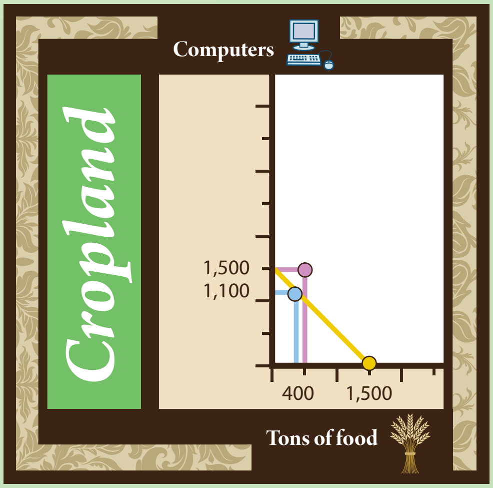
Explore the Concept...

Specialization and Trade

To explore the possible benefits of specialization and trade, imagine two countries, Byteland and Cropland, that produce two goods, computers and food. Each country's production options are illustrated on the graphs below. These graphs are called production possibility frontiers. Current resources and technology allow the country to produce any combination of computers and food on the frontier.

Since Byteland can produce more computers and more food than Cropland, we can say that Byteland has an absolute advantage in producing both goods. To determine comparative advantage, we have to compare the opportunity cost of each country's production. If they choose to produce more food, they give up some computer production. The opportunity cost of the food is the lost computer production. If they produce more





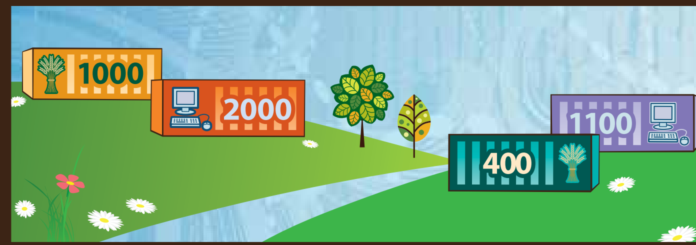
computers, they give up food. The opportunity cost of the computers is the food that is not cultivated.

In Byteland, the society can produce either 4,000 computers and no food or 2,000 tons of food and no computers. The 4,000 computers have an opportunity cost of 2,000 tons of food. Using some simple math, we see that the society gives up two computers for every one ton of food they grow. The opportunity cost of each ton of food is two computers, and the opportunity cost of each computer is half a ton of food. In Cropland, the society can produce 1,500 computers or 1,500 tons of food. The opportunity cost of each computer is one ton of food, and the opportunity cost of each ton of food is one computer.

If we compare computer production in the two countries, we find that the opportunity cost of one computer is one ton of food in Cropland but only half a ton in Byteland. The lower opportunity cost in Byteland means it has the comparative advantage in computer production. Since the opportunity cost of food is lower in Cropland (one computer instead of two computers), Cropland has a comparative advantage in food production and should specialize in this area.

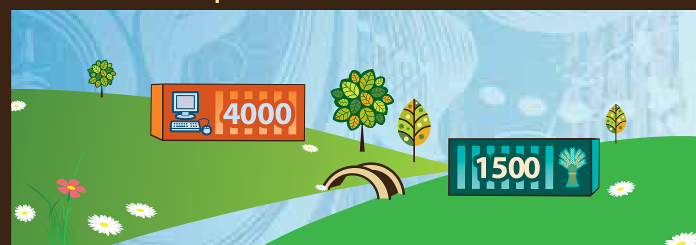
The benefits of specialization are demonstrated in the diagram on the right. If Byteland produced 2,000 computers and 1,000 tons of food for its citizens and Cropland produced 1,100 computers and 400 tons of food, the countries' combined production would be 3,100 computers and 1,400 tons of food (first panel). If the countries specialize in the production of the good in which they have a comparative advantage, Byteland will produce 4,000 computers and no food, while Cropland will produce 1,500 tons of food and no computers (second panel). If Cropland trades 1,000 tons of food for 1,500 computers from Byteland, both countries will gain (third panel). Cropland will have more food and more computers, and Byteland will have more computers while consuming the same amount of food. Through specialization and trade, both countries gain (bottom panel).

Production and consumption before specialization and trade



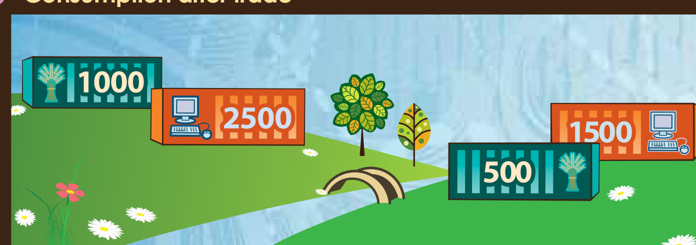
Byteland		Cropland	
Computers	2,000	Computers	1,100
Tons of food	1,000	Tons of food	400

Production after specialization



Byteland		Cropland	
Computers	4,000	Computers	0
Tons of food	0	Tons of food	1,500

Consumption after trade



Byteland		Cropland	
Computers	2,500	Computers	1,500
Tons of food	1,000	Tons of food	500

Gains from specialization and trade

Byteland		Cropland	
Computers	+500	Computers	+400
Tons of food	0	Tons of food	+100

Barriers to trade are measures designed to protect domestic industries from foreign competition. Protectionists advocate the use of barriers including:

Tariffs—taxes on imports

Quotas—limits on the quantity of imports

Voluntary export restrictions—a self-imposed limit on the quantity of exports

Export subsidies—government payments to producers of goods for export

Measures such as licensing requirements and product standards can hinder trade, even if that is not the stated purpose of the regulation.

Protectionism and Free Trade

Even though there are many benefits to free trade, not everyone supports it. Some people believe that free trade is not in the best interest of their country and should be restricted. This belief is called protectionism. Protectionists argue that free trade will cause some domestic industries to shrink and people to lose their jobs. While trade might cause some job loss, other jobs are created.

Think about a country that produces both tractors and textiles. If the country has a comparative advantage in textiles, it could specialize in textile production. This increased production of textiles for export will create jobs in this expanding industry. However, as this country specializes in textiles, tractor production declines. As the tractor industry shrinks, jobs will disappear and some workers may not be able to move into other jobs. Despite this, most economists believe that the benefits of new jobs in efficient industries and lower consumer prices for goods result in a net gain for society as a whole.

A significant challenge for advocates of free trade is finding constructive and efficient ways to compensate the people who are harmed by trade liberalization. Unfortunately in some cases, a country may not have a strong enough infrastructure and tax system to compensate the workers who lose their jobs. If these workers are not provided with the necessary social safety net and retraining programs, unemployment rates can rise and lead to strong opposition to trade liberalization.

A similar argument for protectionism focuses on protecting a nation's highly skilled and well-paid workers from the competition of cheaper foreign labor. To counter this argument, we must remember that workers' wages are at least partially based on their productivity. Better management, higher levels of education, new and improved technology and a better infrastructure of roads, bridges and communication may all be factors that contribute to higher productivity. The resulting capability of workers to produce more than another country's workers for each hour they work may allow a nation to produce goods and services more efficiently, even with higher wages.

Also, protectionists argue that businesses in the developed world compete with industries in countries with lax environmental standards. They believe free trade could produce a race for the bottom, in which firms move production to countries with the least restrictive standards.

Actually, research on the relationship between pollution and development indicates that economic growth allows environmental standards to rise. When a country can barely feed its people, the priority for environmental cleanliness most likely is quite low. As very poor countries begin to grow, pollution initially can get worse. But as they continue to grow and accumulate wealth, they will have both more resources and a greater resolve to keep the environment clean. Because trade increases economic growth, it can eventually give these countries the resources they need to fight pollution.

Consequences of Protectionism

Protectionism is a dangerous, doubled-edged sword. It benefits a handful of domestic producers at the expense of their peers. It ensures the employment or recruitment of some while forcing the layoffs of others. It raises prices on imported goods while simultaneously raising the cost to consumers of the domestic goods they purchase. In essence, it will undercut any temporary benefits it provides with long-term damage and destruction.

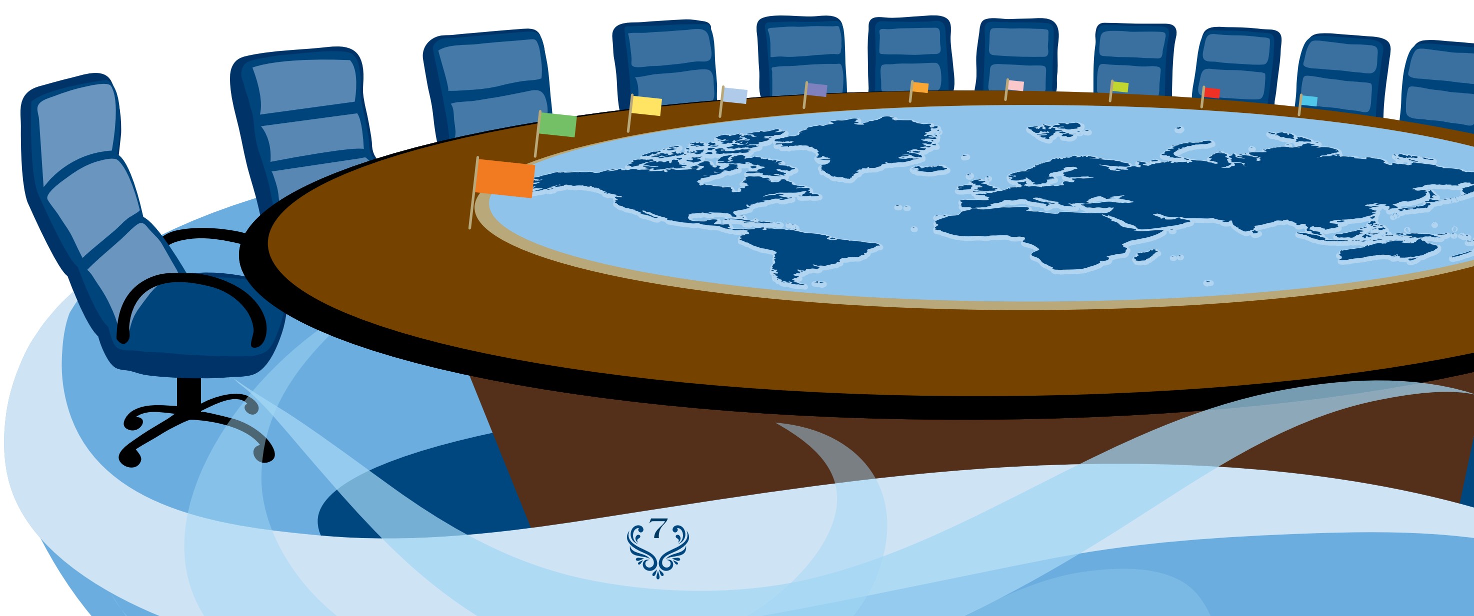
An example may best illustrate how this occurs. Suppose the United States imposed high tariffs on imported steel to protect the U.S. steel industry from foreign competition. American companies have been buying steel at the competitive prices available in the world market, but the new tax raises the price of this less-expensive imported steel. Domestic steel manufacturers can now match the new higher price. By limiting competition from overseas, policymakers have preserved profits and saved thousands of jobs in the U.S. steel industry. This is usually where the protectionist argument stops.

Unfortunately, the damage from protectionism is only beginning. Higher prices in the steel industry mean U.S. businesses that use steel to produce their goods (tractors and automobiles, for example) will see their costs increase. Some of these costs can be passed on to consumers in the form of higher prices, but those higher prices result in lower quantities sold, which in turn can result in lower profits and job losses.

Additionally, when people have to pay more for a car because steel prices went up, they have less money to spend on other things—perhaps clothing, food or entertainment. The consumers will experience a decrease in their standard of living, and industries with no relationship to the steel industry will suffer. The bottom line: Protecting jobs in one industry can actually cost jobs in the rest of the economy and lower the living standard of all consumers.

The Worldwide Effort to Open Trade

International trade was widespread in the late 19th and early 20th centuries, but during the period between World War I and World War II, countries



extensively used tariffs to protect domestic industries from foreign competition. The most well-known and damaging measure in the United States was the Smoot–Hawley Tariff Act of 1930, which raised tariffs on almost a thousand goods coming into the United States. This practice caused other countries to retaliate with high tariffs on U.S. exports, creating a situation that nearly halted world trade.

Soon after World War II, the United States and other countries began to recognize the harmful effects of protectionist tariffs. Negotiations to reduce the tariffs began in Switzerland in 1947. The outcome of these negotiations was the General Agreement on Tariffs and Trade (GATT), which provides a framework for less government interference in international trade. Since the passage of GATT, the trade policies of the United States and more than a hundred other countries have been negotiated under the umbrella of this agreement in a series of meetings called trade rounds. The Uruguay Round, which lasted from 1986 to 1994, led to the creation of the World Trade Organization (WTO) in 1995. Nations that are members of the WTO agree to apply trade policy consistently among all other member nations. This multilateral approach is critical if all countries are going to realize the benefits of free trade.

Although this worldwide effort to increase international trade has been extremely successful, inequities still exist. Many countries, including the U.S. and the nations of the European Union, still protect their farmers with subsidies and tax exemptions. Some nations take advantage of open markets to sell products at prices below the cost of production. This practice is called dumping because cheap foreign goods are "dumped" on the market and create unfair competition for domestic producers. Other countries manage their exchange rates to create an advantage for their exporting industries.

During the 20th century, trade negotiations allowed worldwide growth in the amount of trade between nations and a higher standard of living in those countries that opened their markets to trade.

In the long run, free trade creates many more benefits than costs. A country can increase production by specializing in the goods it can produce most efficiently. By selling those goods to firms and individuals across the world, businesses have the opportunity to increase sales and profits. Profits can translate into increased wages and new jobs for the labor force and additional investment in the economy. The goods produced more efficiently in other countries provide consumers with more goods at lower prices. Preserving our commitment to international trade can help promote higher living standards throughout the world.

Great minds think about...
international trade

Adam Smith (1723–1790) believed that factory workers (and nations) should work in areas where they have a clear advantage and trade for other necessities. His ideas of specialization and trade form the basis of many basic tenets of economics.

David Ricardo (1772–1823) found that nations could benefit from trade based on comparative advantage, even if one nation enjoyed an absolute advantage in production. He based his ideas on the comparison of opportunity costs.

Eli Heckscher (1879–1952) and **Bertil Ohlin** (1899–1979) built on Ricardo's idea of comparative advantage and demonstrated that nations specialize in the production of goods that intensively use the resources that are abundant in the country.

Paul Samuelson (1915– 2009) examined the relationship of prices and payments for resources. Exporting industries will see wages and other resource payments increase, but domestic industries that compete with new imports will see these resource payments fall.

Paul Krugman (1953–) demonstrated that beneficial trade can occur between nations that are very similar and have large and efficient industries. This worldwide production allows consumers to choose from a wide variety of goods and services.

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