The Global Economy:
“It’s a Small World After All”
November 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 6)

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The Global Economy: “It’s a Small World After All”

Erin A. Yetter, Ph.D., Economic Education Specialist

“It’s a world of laughter, a world of tears
It’s a world of hopes and a world of fear
There’s so much that we share
That it’s time we’re aware
It’s a Small World after all.”

—Written by Robert B. and Richard M. Sherman for the Walt Disney Company

Think about how you start a typical day. When you wake up in the morning, you enjoy a glass of orange juice, a cup of coffee, and a bowl of cereal. Your juice was made from Florida oranges, the coffee from Colombian beans, the cereal from Kansas wheat, and the milk from a Wisconsin dairy farm. Because it’s impossible for you to physically live in all these different places, other people must provide the goods and services to make your breakfast possible. They do so through a process known as trade, an interdependent system of exchanging goods and services. For instance, trade makes it possible for me to enjoy Florida orange juice while living in Kentucky.

Why Do People Trade?

To understand why people trade, suppose you were limited to consuming only items you could find within walking distance of your house. Or, perhaps even worse, only items you could produce yourself. For most of us, this restriction would severely diminish the variety of goods and services we enjoy on a daily basis. Therefore, the simplest answer to the question is that people (or entire countries) trade because they will enjoy a wider variety of goods.

How Do People Know What to Trade?

If a country can produce a good or service with fewer resources, it has an absolute advantage over other countries in the production of that good or service. For example, copper is a natural resource in both the United States and Mexico. Consider this example: U.S. producers have manufacturing technology that allows them to make a foot of copper wire with only one ounce of copper. Producers in Mexico must use two ounces of copper to make that same foot of copper wire. Mexico uses more inputs (effort and materials) to produce the same product. So, all else equal, the United States has an absolute advantage in the production of copper wire. Therefore, the United States should produce copper wire, sell it or trade it with Mexico or other countries, and buy other goods from them.

Trade also involves another type of advantage—comparative advantage. To continue our example, consider that copper can be used to produce either wire or pipes. As discussed above, with one pound of copper, the United States can produce 16 feet of copper wire (one ounce of
copper for each foot of wire); or, with that same pound of copper, it could make one copper pipe. As discussed, with one pound of copper, Mexico can produce 8 feet of wire (two ounces of copper for each foot of wire); or, with that same pound of copper, it also could make one copper pipe. In this case, Mexico has the lower opportunity cost in the production of copper pipe. Here’s why: Mexican producers give up producing 8 feet of wire to make one copper pipe. But the opportunity cost in the United States is higher: U.S. producers give up producing 16 feet of wire to make one copper pipe. Thus, Mexico has a comparative advantage in the production of copper pipe and can specialize in that. The United States, on the other hand, has a comparative advantage in the production of copper wire and can specialize in that. When each country specializes in making the good for which it has a comparative advantage, total production rises. Consequently, both countries can trade so they each eventually have some copper wire and copper pipe, more products are produced and/or fewer inputs are used, and everyone is now better off.

How Much Do We Trade?

We’ve discussed why countries trade and how they know what to trade, but how much trade really takes place? The level of trade is different for each country, so let’s discuss the United States. The chart shows the United States’ monthly balance of trade—the monthly difference between goods and services produced abroad but sold here (i.e., imports) and goods and services produced here and sold abroad (i.e., exports). Mathematically, it is simply exports minus imports.
How Trade and Comparative Advantage Are Related

Trade allows us to purchase a variety of things at a dramatically lower cost than if they could be produced domestically because other countries have a comparative advantage in producing them. In other words, it's possible to grow coffee in the United States, but it is much cheaper to import it from Colombia. Comparative advantage also allows us to specialize in what we do best, which means that the value of our production is much higher than if we tried to produce everything (e.g., coffee) here. Thus, trading based on comparative advantage allows us to buy a wider variety of goods at lower prices and have more income to buy those goods.

Conclusion

Trade provides us with a variety of goods and services. People or countries trade with each other because it allows them to enjoy that wider variety of goods and services. The principle of comparative advantage helps us understand the basis of trade—that is, countries specialize in the production of goods and services they can make or provide at a lower opportunity cost. Trade allows us to purchase a variety of things at a dramatically lower cost than if they were produced domestically because other countries have a comparative advantage in producing them. Further, comparative advantage allows for specialization in what we do best, which means the value of our production is much higher than if we tried to produce everything. Finally, trade is rarely balanced at any point in time—countries often either import more than they export or vice versa. The United States currently imports much more than it exports.

NOTES

1 Opportunity cost calculations: 1 pound copper in United States = 16 feet copper wire = 1 copper pipe. 1 pound copper in Mexico = 8 feet copper wire = 1 copper pipe. Mexico gives up 8 feet of wire while the United States gives up 16 feet of wire to produce 1 pipe. Lower opportunity cost = comparative advantage.

2 This is also sometimes referred to as “net exports.”

GLOSSARY

Absolute advantage: The ability to produce more of a good or service than another producer using the same amount of resources as that producer, or stated differently, the ability to produce a good or service using fewer inputs than another producer.

Balance of trade: The difference between a country’s total exports and total imports. Also known as “net exports.”

Comparative advantage: The ability to produce at a lower opportunity cost than another producer.

Exports: Goods or services that are produced domestically but sold abroad.

Imports: Goods or services that are produced abroad but sold domestically.

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

Specialization: Limiting production to fewer goods and services than consumed, perhaps those whose production entails the lower opportunity cost.

Trade: The exchange of goods or services for other goods or services or for money.
After reading the article, answer the following questions.

1. Does the concept of comparative advantage apply to individuals, countries, or both? Explain.

2. Suppose that one day of labor in each country produces the following quantities of fish and cheese:

<table>
<thead>
<tr>
<th>Country</th>
<th>Fish (tons)</th>
<th>Cheese (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>80</td>
<td>40</td>
</tr>
<tr>
<td>Japan</td>
<td>200</td>
<td>50</td>
</tr>
</tbody>
</table>

- Does France have a comparative advantage in the production of fish, cheese, or neither? Explain.
- Does Japan have a comparative advantage in the production of fish, cheese, or neither? Explain.

- Suppose the countries decide to trade with each other—1 ton of cheese for 3 tons of fish. Would this trade be advantageous to both countries? Explain.
After reading the article, answer the following questions.

1. Does the concept of comparative advantage apply to individuals, countries, or both? Explain.
   It applies to both. Individuals, just like countries, face opportunity costs when making decisions.

2. Suppose that one day of labor in each country produces the following quantities of fish and cheese:

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- Does France have a comparative advantage in the production of fish, cheese, or neither? Explain.
  France has a comparative advantage in the production of cheese. To get 1 ton of cheese, it has to give up only 2 tons of fish. To get that same amount of cheese, Japan would have to give up more fish (4 tons).
  France: 80 fish = 40 cheese; simplify to get 2 fish = 1 cheese.
  Japan: 200 fish = 50 cheese; simplify to get 4 fish = 1 cheese.

- Does Japan have a comparative advantage in the production of fish, cheese, or neither? Explain.
  Japan has a comparative advantage in the production of fish. To get 1 ton of fish, it has to give up only \( \frac{1}{4} \) (0.25) tons of cheese. To get that same ton of fish, France would have to give up more (\( \frac{1}{2} \) [0.5] tons of cheese).
  France: From 2 fish = 1 cheese above, divide both sides by 2; then 1 fish = \( \frac{1}{2} \) cheese.
  Japan: From 4 fish = 1 cheese above, divide both sides by 4; then 1 fish = \( \frac{1}{4} \) cheese.

- Suppose the countries decide to trade with each other—1 ton of cheese for 3 tons of fish. Would this trade be advantageous to both countries? Explain.
  Yes. Without trade, it would cost France 1 ton of cheese to get 2 tons of fish. With trade, it could get 3 tons of fish for that same ton of cheese. So it gives up the same amount of cheese but has 3 tons of fish instead of 2.
  Without trade, it would cost Japan 4 tons of fish to get 1 ton of cheese. With trade, it would cost only 3 tons of fish to get that same ton of cheese, which is less.
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).