What did you get or are you getting for your birthday this year? A computer? Clothes? Video games? Chances are that if you get any of these items, it was manufactured in China.

The same would not be true for someone your age in China. The most likely way that a Chinese student would get an American-made product for their birthday would be if their parents bought them an airplane, some semiconductor chips, or a large shipment of soybeans. This is because China exports a lot of goods to the U.S., but doesn't import that many.

Exports are goods or services that are sold to another country. When China manufactures toys for Target to sell, China is exporting goods.

Conversely, imports are goods or services purchased from another country. When Target buys those toys to sell at their stores, they are importing goods.

Collectively, the process of importing and exporting is referred to as international trade, even though companies are paying money for all these products and there is no trading taking place, at least not in the way that we normally think of trading.

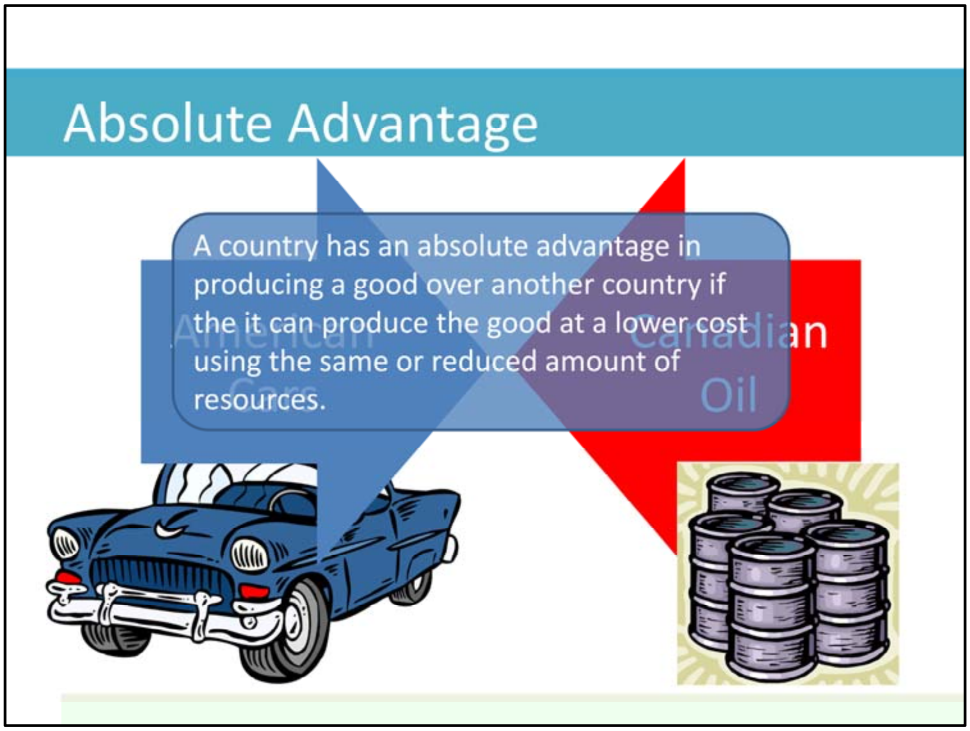
A couple of questions might come to mind: why do countries trade, and is trade a good thing for everyone involved?

Let’s look at an example to see why countries trade.

Say you live in Canada which produces a lot of oil, natural gas, and other things, but has no car companies. If you want to buy a car, you have to buy a foreign car. Why is this the case?

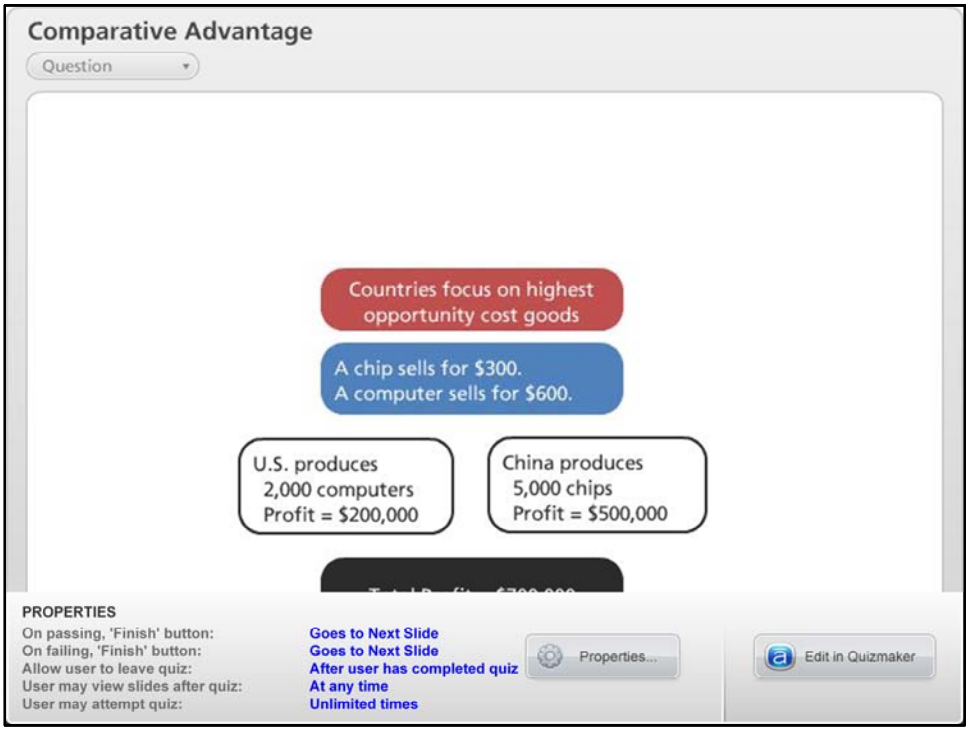
The most likely reason is that it is cheaper for you to buy an imported car, or one that is assembled in Canada from imported parts, than it is to buy a car built in Canada. As we saw in the lesson on competition, consumers buy the things they want for the cheapest price. No Canadian company can build a car cheaper than these foreign car companies, and very few Canadians would pay more just to buy a Canadian car.

Canada has a lot of oil, however, so it can produce it cheaply. America consumes more oil than it produces, and Canada produces more oil than it can consume. Canada exports oil to the U.S., and the Americans get cheaper gas, and the Canadians buy cars from the U.S. and get cheaper cars. Both benefit from trade by specializing in different industries.



So the U.S. can produce cars more cheaply, and Canada can produce oil more cheaply. Another way to say this is that the United States has an absolute advantage over Canada in automobile production, and Canada has an absolute advantage over the U.S. in oil production.

A country has an absolute advantage in producing a good over another country if the it can produce the good at a lower cost using the same or reduced amount of resources.


Comparative Advantage
Question
Countries focus on highest opportunity cost goods
A chip sells for $300.
A computer sells for $600.
U.S. produces 2,000 computers Profit = $200,000
China produces 5,000 chips Profit = $500,000
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If a country has an absolute advantage in producing some good, should they do it? Not always. It may not be to their *comparative advantage* to do so.

Let's look at a sports example to see how this works.

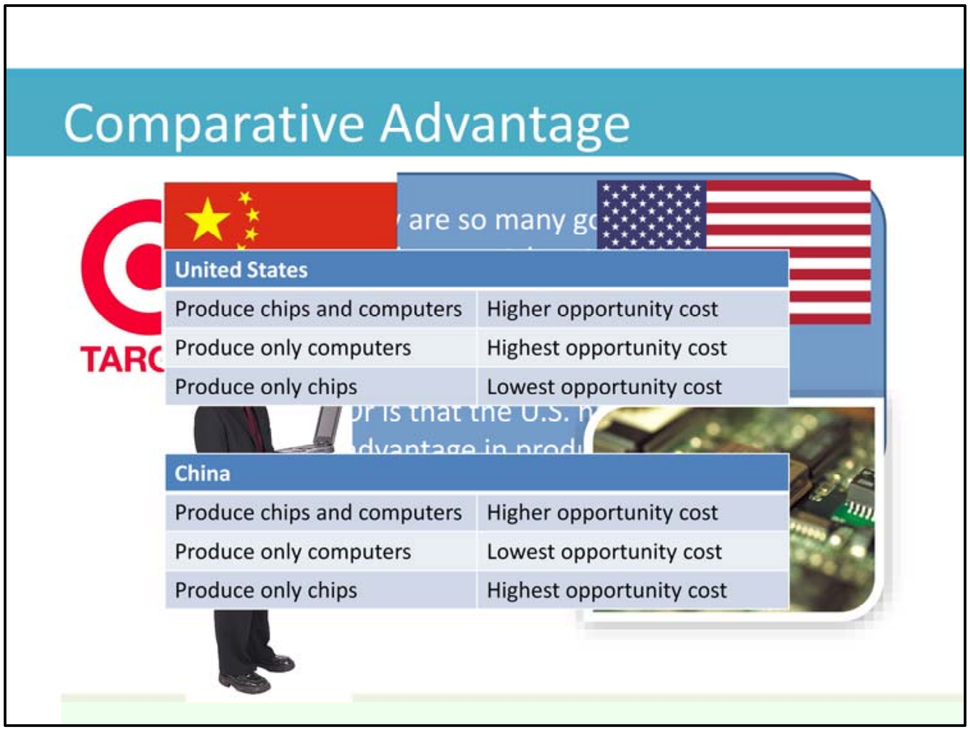
Think about Tiger Woods. Many people believe that he is the world's best golfer, and has an absolute advantage over all other golfers. Well, imagine he's also the world's best caddy. So he has an absolute advantage as a golfer, and as a caddy. Should he try and do both?

If he takes time to be a caddy, he'll have to sacrifice some tournaments and make less prize money. He'll definitely make less money because the prize money is much higher than any money he could make as a caddy. The income that he gives up in order to be a caddy is the opportunity cost of working as a caddy at the expense of playing tournament golf.

Even though Tiger has an absolute advantage as both a caddy and a golfer, the opportunity cost of doing both is too high: he makes much more money by only playing golf. He has a comparative advantage in playing golf full time since the opportunity cost is lower than being a golfer and a caddy.

Absolute advantage measures who or what can produce a good or service the cheapest. Comparative advantage measures who or what can produce a good or service with the lowest opportunity costs. How does that influence what countries produce?

[This image was originally posted to Flickr by Keith Allison at http://flickr.com/photos/27003603@N00/2310256673.]



American companies have the technology and the resources to create almost any good or service you can buy. So why is it when you go to Target, so many of the products are made in other countries? You might think it's because these other countries have an absolute advantage in producing these goods, but it may also be that the U.S. has a comparative advantage in producing other goods.

Countries can only produce a certain amount of goods. There are only so many workers in any country and so many factories, so they can't produce unlimited amounts of any item. Therefore, like in our Tiger Wood's example, it's in a country's interest to specialize in those activities where they have a comparative advantage, and can make greater profits.

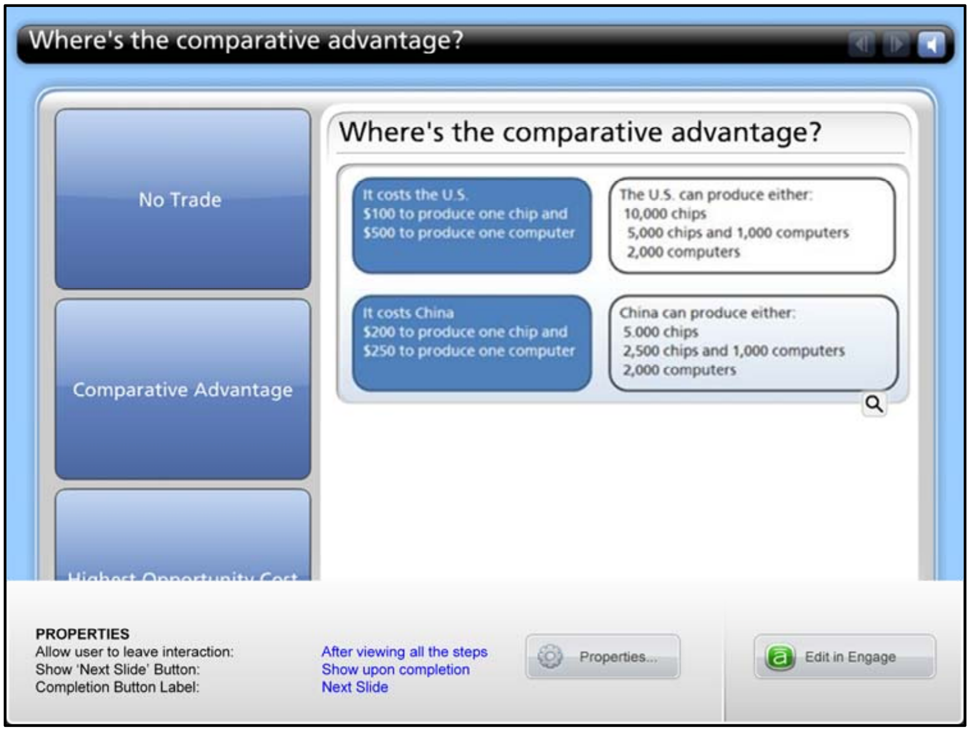
Think about computers, which are usually made on assembly lines in large factories using a lot of labor. This labor is a big expense for manufacturers. The majority of computers are manufactured in China, which has much lower labor costs than the U.S. By building factories in China, computer manufacturers can build computers for less, making higher profits than they would in the U.S.

This is not true for all the components that go into a computer, however. The majority of microprocessors, commonly referred to as "chips", are designed or built in the U.S. by companies like Intel. It's very expensive to make chips, both for the machinery involved, and the technical expertise of the people running the machines. Because the U.S. can produce chips cheaper than China, it's cheaper for computer manufacturers to buy them from the U.S.

In this situation, the U.S. has a comparative advantage in making chips because they make more money by focusing on chip production than they would by manufacturing computers. China has a comparative advantage in computer manufacturing because they can do it cheaper than the U.S. and can make more profit this way.

See the graph for a breakdown of the opportunity costs.

Consumers and businesses benefit because they get the lowest prices for goods when countries specialized in those industries where they have a comparative advantage.

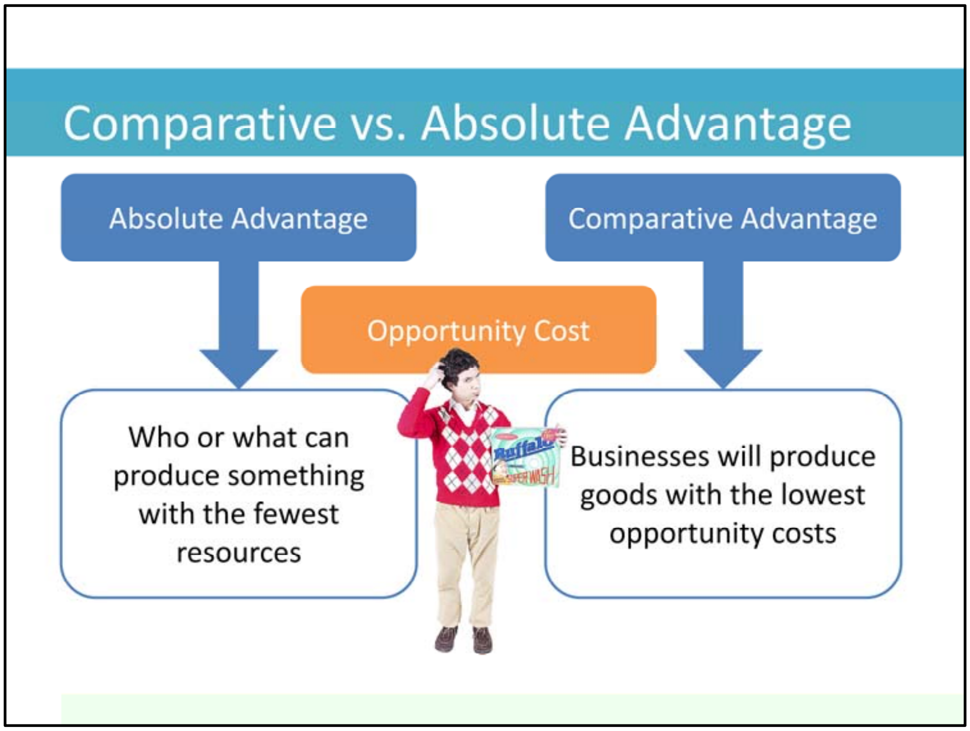


Let's look at some hypothetical numbers to see how comparative advantage works in this example.Assuming that these items sell for the same price in both countries, what should each country do to maximize its comparative advantage?

The profit in each of these scenarios is as follows. A chip sells for $300. A computer sells for $600.Let's say that the countries don't trade and have to produce all of the good themselves. In this scenario, the U.S. produces five thousand chips and one thousand computers for a total profit of $1.1 million. China produces 2,500 chips and 2,000 computers for a profit of $950,000. The net result is 7,500 chips and 3,000 computers, and a total profit of two million fifty-thousand dollars.

What happens if the U.S. decides to trade with China and they both specialize? In this scenario, the U.S. produces ten thousand chips and China produces four thousand computers for a total profit of three million four hundred thousand dollars. Profits are higher for everyone, and more units are manufactured. When both countries focus on the industry where they have a comparative advantage, the opportunity costs are lower for both countries. By specializing, the U.S. makes an additional nine hundred thousand dollars, and China makes an extra three hundred and fifty thousand dollars. If both countries don't trade and produce all of the goods, they have higher opportunity costs due to lost profits. They also produce fewer goods.

Finally, if the countries specialize in manufacturing the goods with the highest opportunity cost, the U.S. makes only computers and China only computer chips, this yields the lowest profit for the producers and the fewest number of manufactured goods. Obviously, not a good outcome for anyone, including consumers.



Comparative advantage can be a complicated concept to grasp. The most important difference between *absolute* advantage and *comparative* advantage is opportunity cost. Absolute advantage only looks at who or what can produce something with the fewest resources. The theory of comparative advantage states that businesses or countries will produce goods with the lowest opportunity costs. Comparative advantage helps explain why businesses and countries specialize in certain industries, even though they may have an absolute advantage in lots of industries.

Click the image if you'd like to see one more example of comparative advantage that might help clarify the concept.

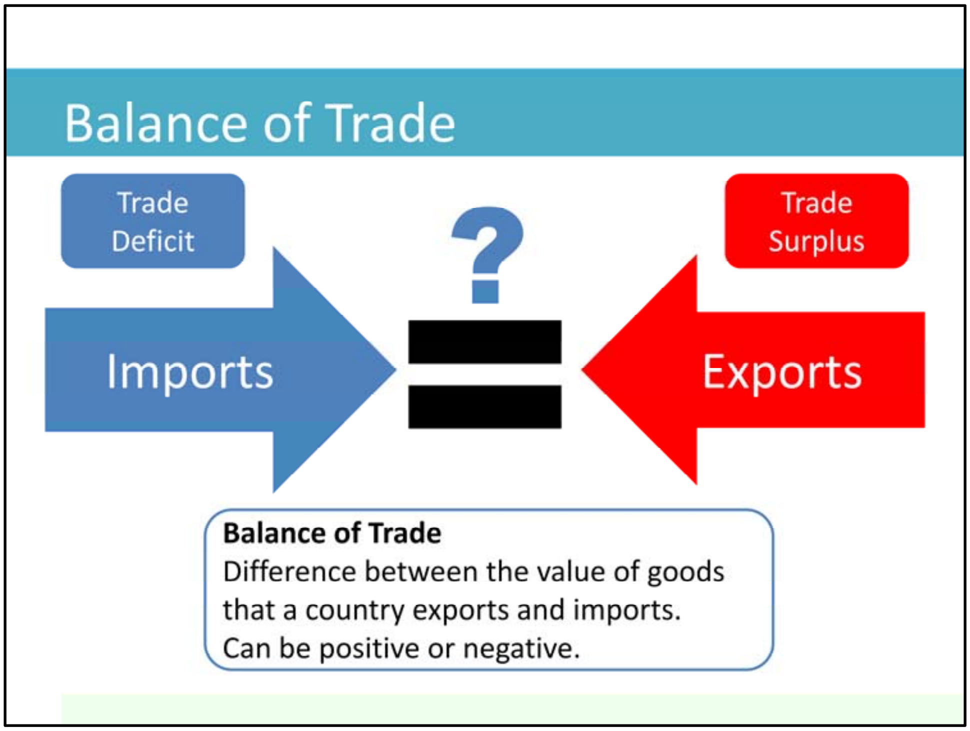
You are having some friends over tonight for a party. Your parents want you to clean the house and the yard first. Since you can't do it alone, your best friend volunteers to help you.

You're really good at dusting and vacuuming, but slow at yard work. Your friend is better than you at dusting, vacuuming, and good at yard work.

Since your friend is better and faster at every task, should you just sit back while she does all the work? No. Even though she's faster and better, there's not enough time for her to do it all, so you won't be able to have the party if you don't share the work.

So, let's look at your opportunity costs. Your friend is a lot better at yard work and slightly better at cleaning the house. So, what should you do? What is your comparative advantage in this situation? If you clean the house, and your friend does the yard work, you will both be better off.

Remember, sacrifice the lowest opportunity cost. In order to find your comparative advantage, don't think about your absolute advantage. Think about and compare your opportunity costs.

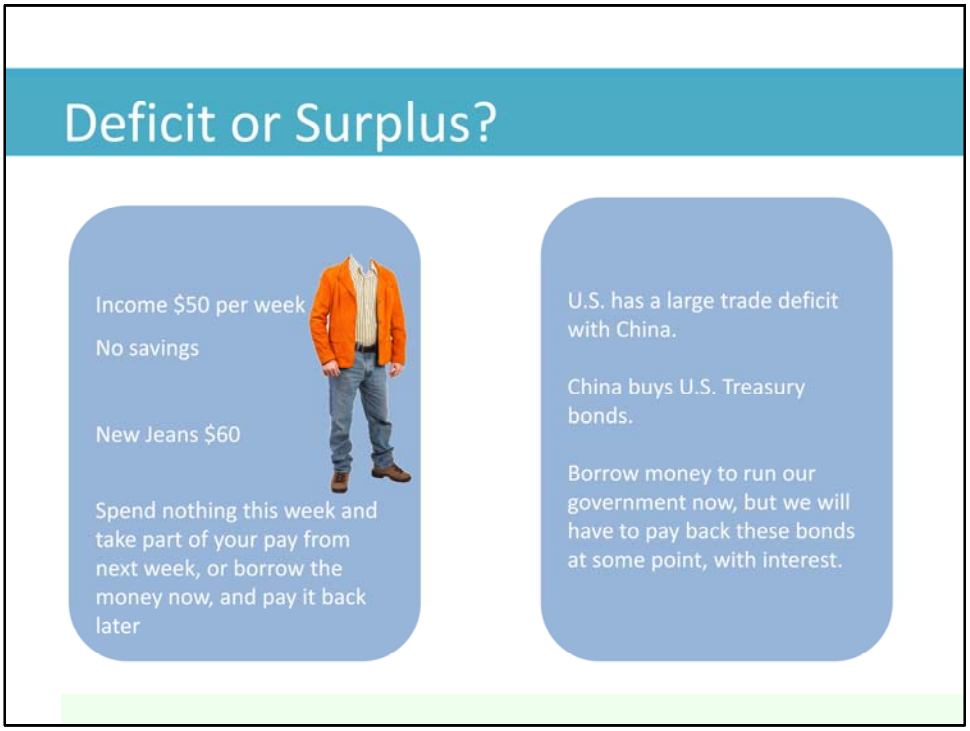


So, countries and businesses benefit from international trade. But do countries always export as much as they import?

The difference between the value of goods that a country exports and imports is called the balance of trade or net exports. A country can have a positive or negative balance of trade.

If a country exports more than it imports, it has a trade surplus. A trade surplus means that the country is producing more than it is consuming, and money is flowing from its trading partners to its economy. This can help raise the standard of living.

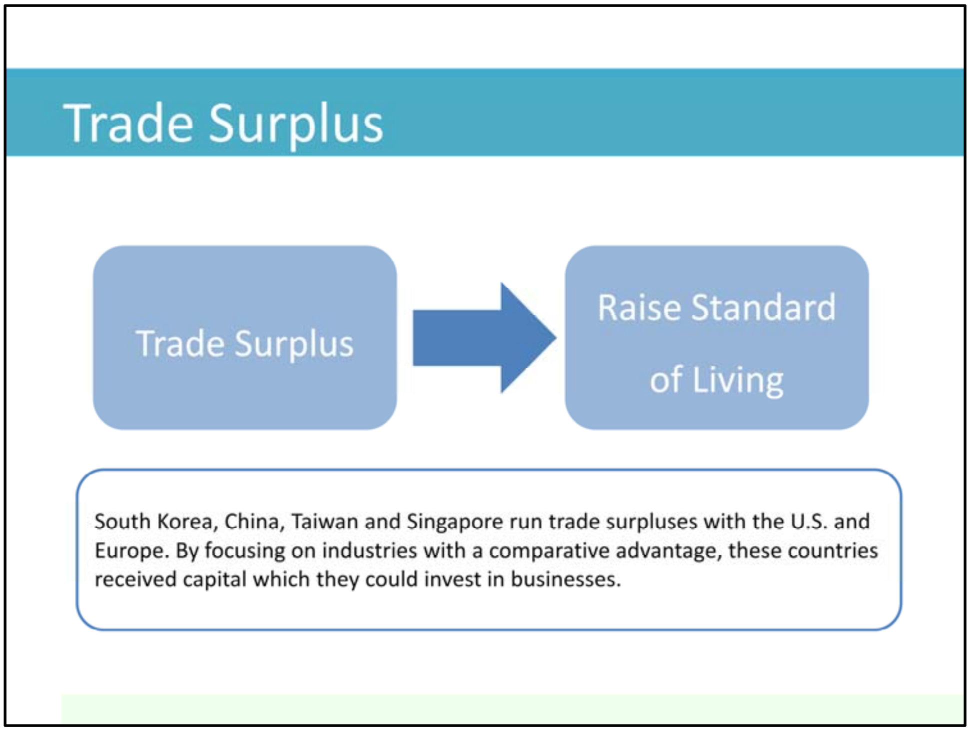
If a country imports more than it exports, it has a trade deficit. A trade deficit means that the country is consuming more than it is producing, and money is flowing from the country to its trading partners.



Do you think it's better to have a trade surplus or a deficit?

We know that with personal budgets, it's better to have a surplus. Let's say you make $50 a week, and you have no savings. The only way you can spend $60 to buy new clothes is either to spend no money this week and take part of your pay from next week, or borrow the money now, and pay it back later. Borrowing money costs more because you have to pay it back with interest.

The same principles are at work when a country has a trade deficit. A country can only consistently run a deficit by borrowing money from other countries. Currently, the U.S. has a large trade deficit with China, which holds billions of American dollars in its banks. China lends much of this money back to us by purchasing U.S. Treasury bonds. We are borrowing this money to run our government now, but we will have to pay back these bonds at some point, with interest.



Trade surpluses, on the other hand, can increase economic activity and raise the standard of living within a country.

For example, all of the countries from the Far East that have recently experienced great increases in their standard of living – South Korea, China, Taiwan and Singapore – did so largely by running trade surpluses with the U.S. and Europe. By manufacturing goods for export in which they had a comparative advantage, these countries received a lot of money from other countries which they could invest in businesses.

Balance of Trade

Question

This graph shows the U.S. trade balance from 1980 to 2010. The number zero on the y axis represents parity - a country is exporting as much as it is importing. A negative number represents a trade deficit.

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Whether a country is running a trade surplus or deficit can be an important indicator of a country's economic health, especially whether a country is spending more than it is earning, or saving more than it spends.

While the balance of trade is an interesting statistic, economists don't agree on how big a deficit is bad for a country. It is a statistic, however, that all economists watch because it can highlight trends in international trade.