14.3: Measuring Global Trade

What you'll learn to do: describe how nations measure global trade

In the same way that nations measure their own economic productivity, they use specific tools to measure their trade with other nations. In this section you'll learn what some of those tools are and how they're used.

Learning Objectives

- Differentiate between trade deficits and trade surpluses
- Explain how countertrade contributes to the measure of global trade

Balance of Trade and Balance of Payments

Nations and businesses that trade back and forth, buy and sell companies, loan one another money, and invest in real estate around the globe need to have a way to evaluate the impact of these transactions on the economy. They need to make decisions about trade policies, regulations, and trade agreements, and until they can get a snapshot of what global trade is doing to hurt or help its economy, they can't make these decisions. It's a lot like your own finances, just on a much larger scale. At the end of the month have you spent more than you earned? Do you have a large positive balance in your bank account as a result of receiving a financial aid check? Did you need to borrow money from your parents to buy books or clothes? Until you really examine where your money is coming from and balance your checkbook, it's hard to make long-term financial plans—like, say, deciding whether or not to buy a new car or purchase a home. This is very similar to what countries do when they measure the impact of trade on their economy.

In this section we'll look at two key measurements of trade: balance of trade and balance of payments.

Balance of Trade

One of the ways that a country measures global trade is by calculating its **balance of trade**. Balance of trade is the difference between the value of a country's imports and its exports, as follows:

value of exports – value of imports = balance of trade

Note

It's important to use this formula just as it's presented, without altering the sequence of values.

The calculation of the balance of trade yields one of two outcomes: a trade deficit or a trade surplus. A **trade deficit** occurs when a nation imports more than it exports. Since 1976, the United States has consistently run trade deficits due to high imports of oil and consumer products. In recent years, the biggest trade deficits were recorded with China, Japan, Germany, and Mexico. This shouldn't come as a surprise to you if you emptied your backpack and counted up all the items *not* made in the United States. In contrast, a **trade surplus** occurs when a nation exports more than it imports. Although the United States has run an overall trade deficit since 1976, it doesn't mean that we import more from *every* country than we export. On the contrary, the United States records trade surpluses with Hong Kong, the Netherlands, the United Arab Emirates, and Australia. Because the balance of trade is calculated using **all** imports and exports, it's possible for the United States to run a surplus with some nations and a deficit with others. As with your checkbook, the balance reflects the difference between *total* exports ("deposits") and *total* imports ("withdrawals").

candyland's balance of trade

Let's look at the balance of trade for "Candyland."

Candyland is located in a region that lacks phosphate as a natural resource. However, it does have an abundance of sugarcane. As a result of its comparative advantages, Candyland imports phosphate from Christmas Island (it's a real place in Australia—look it up!) to fertilize the sugarcane it grows, and it uses the sugarcane to manufacture saltwater taffy, which it exports to Christmas Island. The following table shows Candyland's imports and exports with Christmas Island in 2014.

	Imports (phosphate)	Exports (taffy)
2014	$45,000,000	$75,000,000

Using these figures, we can easily calculate Candyland's balance of trade in 2014:

$75,000,000 (exports) − $45,000,000 (imports) = $30,000,000

This means that Candyland had a trade surplus of $30,000,00 with Christmas Island, since exports exceeded imports. We can also say that Candyland was a "net exporter," meaning they exported more than they imported.

However, the picture changed in 2015 when the Australian government closed the phosphate mine on Christmas Island. Candyland had to import phosphate from Morocco, instead, and was not able to get the same favorable pricing as before. Consequently, sugarcane farmers paid more for fertilizer, the price of sugarcane went up, and Candyland had to raise the price on its saltwater taffy. Sadly, the people of Morocco aren't really big fans of saltwater taffy, so exports fell. The following table shows Candyland's imports and exports with Morocco in 2015.

	Imports (phosphates)	Exports (Taffy)
2015	$65,000,000	$55,000,000

We can use the figures to calculate Candyland's balance of trade:

$55,000,000 (exports) − $65,000,000 (imports) = −$10,000,000

The negative number indicates a trade deficit of $10,000, showing that Candyland's imported more from Morocco than it exported. We would say that Candyland became a "net importer"—importing more than it was exporting.

Obviously this is a simple example. A country's global business doesn't amount to just trading phosphate and taffy or cell phones and blue jeans. It includes all kinds of financial transactions: goods and services imported and exported, foreign investments, loans, transfers, and so on. Tracking all these payments provides another way to measure the size of a country's international trade: the balance of payments.

Balance of Payments

Balance of Payments is the difference between the total flow of money coming into a country and the total flow of money going out of a country during a period of time. Although related to the balance of trade, balance of payments is the record of **all** economic transactions between individuals, firms, and the government and the rest of the world in a particular period. Thus the balance of payments includes **all** external transactions of a country, including payments for the country's exports and imports of goods, services, foreign investments, loans and foreign aid, financial capital, and financial transfers.

- For instance, if a US company buys land or a factory in another country, that investment is included in the US balance of payments as an *outflow*. Likewise, if a US company is sold to a foreign company, it's included in the balance of payments. Just recently, Didi Chuxing, the Chinese ride-hailing service, bought Uber's subsidiary in China in a deal valued at $35 billion. This sale will create a *cash inflow* to the United States, but over the long term it will decrease the revenue flowing in from China through Uber.
- If a nation receives foreign aid or borrows money from another country, this amount is also reflected in its balance of payments as a *cash inflow*. For example, the bailout Greece received from the Eurozone and IMF in 2010 to help stabilize its failing economy affected the balance of payments for all of the nations involved. Greece recorded the €110 billion loan as an *inflow* in its balance of payments, while the Eurozone members recorded it as an *outflow* in their balance of payments.

A country's balance of payments is calculated as follows:

total money coming into a country (inflow)− total money going out (outflow) = balance of payments

Note

It's important to use this formula just as it's presented, without altering the sequence of values.

Candyland's balance of payments

Let's examine Candyland's balance of payments in 2015. The following table shows all of its external transactions during the year.

	Imports (phosphates)	Exports (taffy)	Foreign aid (loan) from Hooperland	Purchase of Wandaland assets
2015	$65,000,000	$55,000,000	$25,000,000	$30,000,000

When we calculated Candyland's balance of trade in 2015, we *did not* take into account the following two transactions:

1. Candyland invested in a factory in Wandaland and purchased the factory from the government for $30,000,000. This *outflow* of funds will affect Candyland's balance of payments.

When we calculate Candyland's 2015 balance of payments, by taking the inflows (revenue from exports and foreign aid) and subtracting the outflows (payments for imports and purchase of foreign assets), the balance is negative, as shown below:

($55,000,000 + $25,000,000) (total inflow) – ($65,000,000 + $30,000,000) (total outflow) = −$15,000,000

What effect will this have on Candyland? Well, when Candyland's leader is briefed by her council of international economic advisers, they will inform her that the country currently has an "unfavorable balance of payments." That is, less money is coming into the country than is going out. If, on the other hand, the balance of payments were a positive number (inflow exceeded outflow), Candyland could say that it has a "favorable balance of payments."

At this point it's tempting to make judgments about these different types of trade measurements and conclude that trade surpluses and favorable balance of payments are always indicators of a strong economy, but unfortunately it's not so cut and dried. Balance of trade and balance of payments are starting points—much in the way that an individual's credit rating might be a starting point for seeking a loan. How the numbers are interpreted and viewed by the country's leaders, other countries, and the world depends on many factors, such as where a country is in its economic development, the factors contributing to the balance of trade or payments, the health of the overall global economy, what the country is doing with its imports, and so on. As you might guess, assessments of these factors can be intensely political. You'll learn more about these considerations later in this module when we discuss how nations attempt to restrict or control trade.

Countertrade

So far we have discussed global trade measured in dollars, euros, or other traditional currency, which is the way that everyone assumes business is conducted today. For example, here in the United States, we express the size of the global market, or Global World Product (GWP), as U.S. $107.5 trillion. If we lived in Japan, we'd measure GWP using Japanese currency, yen (¥).

However, when we measure global trade *only* in terms of currency-based transactions, we omit a portion of the market known as countertrade. **Countertrade** is a system of exchange in which goods and services are used as payment rather than money. There are many types of countertrading. Some of the most common types are described below:

1. **Barter**: Exchange of goods or services directly for other goods or services without the use of money as means of purchase or payment. Example: One party trades salt for sugar from another party.
2. **Switch trading**: Practice in which one company sells to another its obligation to make a purchase in a given country. Example: Party A and Party B are countertrading salt for sugar. Party A may switch its obligation to pay Party B to a third party, known as the switch trader. The switch trader gets the sugar from Party B at a discount and sells it for money. The money is used as Party A's payment to Party B.
3. **Counterpurchase**: Sale of goods and services to one company in another country by a company that promises to make a future purchase of a specific product from the same company in that country. Party A sells salt to Party B. Party A promises to make a future purchase of sugar from Party B.
4. **Buyback**: This occurs when a firm builds a plant in a country, or supplies technology, equipment, training, or other services to the country, and agrees to take a certain percentage of the plant's output as partial payment for the contract. Example: Party A builds a salt-processing plant in Country B, providing capital to this developing nation. In return, Country B pays Party A with salt from the plant.
5. **Offset:** Agreement that a company will offset a hard-currency purchase of an unspecified product from that nation in the future. Agreement by one nation to buy a product from another, subject to the purchase of some or all of the components and raw materials from the buyer of the finished product, or the assembly of such product in the buyer nation. Example: Party A and Country B enter a contract where Party A agrees to buy sugar from Country B to manufacture candy. Country B then buys that candy.

Countertrading is common among countries that lack sufficient hard currency (i.e., cash) or where other types of market trade are impossible. In developing countries, whose currency may be weak or devalued relative to another country's currency, bartering may be the only way to trade. For example, if the value of Venezuela's currency, the *bolívar fuerte*, falls relative to the U.S. dollar (as it has in recent years), the exchange rate makes it unfavorable for Venezuela to sell its oil to the United States. Countertrade may be a much more financially beneficial arrangement.