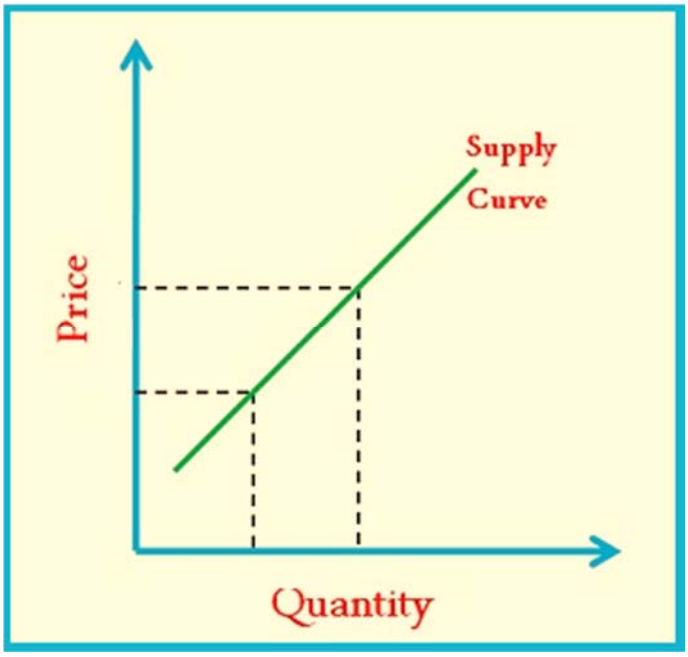
SUPPLY: THE PRODUCER RULES



Unit Overview

In the marketplace, demand explains the consumer side of purchasing decisions; supply, on the other hand, relates to the producer. Just as consumers choose what and how much to purchase, sellers decide what and how much to produce, or supply. The law of supply predicts that producers will supply more of a good or service if the price goes up and less if the price goes down. As with demand, economists use supply schedules and supply curves to illustrate this principle and to analyze data. They also recognize that several factors other than price influence supply. Let's see how the supply side of the marketplace works.

How an Economist Defines Supply

In a market system, buyers demand goods and services. In other words, demand focuses on the consumer. However, if consumers are going to buy products, someone must create them. It is up to the producer to supply the goods and services that fulfill the wants and needs of the consumer. For this reason, **supply**, unlike demand, focuses on the seller. An economist defines *supply* as the amount of goods and services that are available at various prices within the marketplace. Producers try to keep the cost of the factors of production low so that they can achieve their primary goal, which is to make a profit. They come in all shapes and sizes. Large corporations, small businesses, workers and individuals who sell products online or at flea markets all qualify as producers. Do friends or neighbors sometimes hire you to cut grass, shovel snow or babysit? If so, you are actually providing a service with the hope of making a profit. This makes you a producer!

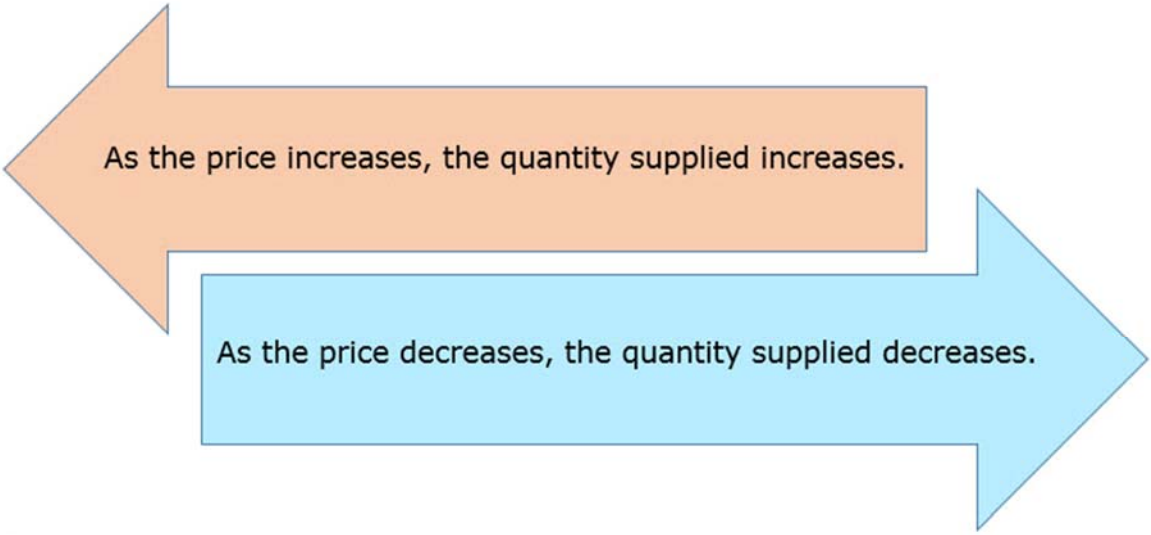
Producers and Consumers at a Produce Market in Paris, France

Go to Questions 1 through 4.

The Law of Supply

Since producers are receiving payment for their goods and services, they want to receive the highest prices for their products. This is the basis for the **law of supply**, a principle which states that suppliers offer more products for sale at

higher prices and fewer for sale at lower prices. To make a profit, each individual seller must decide how much he or she can offer for sale and what price to charge. As long as prices remain high, existing businesses produce more to earn more. High prices also provide an **incentive**, or reward, for new businesses making similar products to enter the marketplace. When prices decrease, existing companies are more likely to offer fewer goods for sale; others may drop out of the market altogether. In both cases, the desire for **profits** drives the seller's decision-making process.



Go to Questions 5 and 7.

Illustrating the Law of Supply

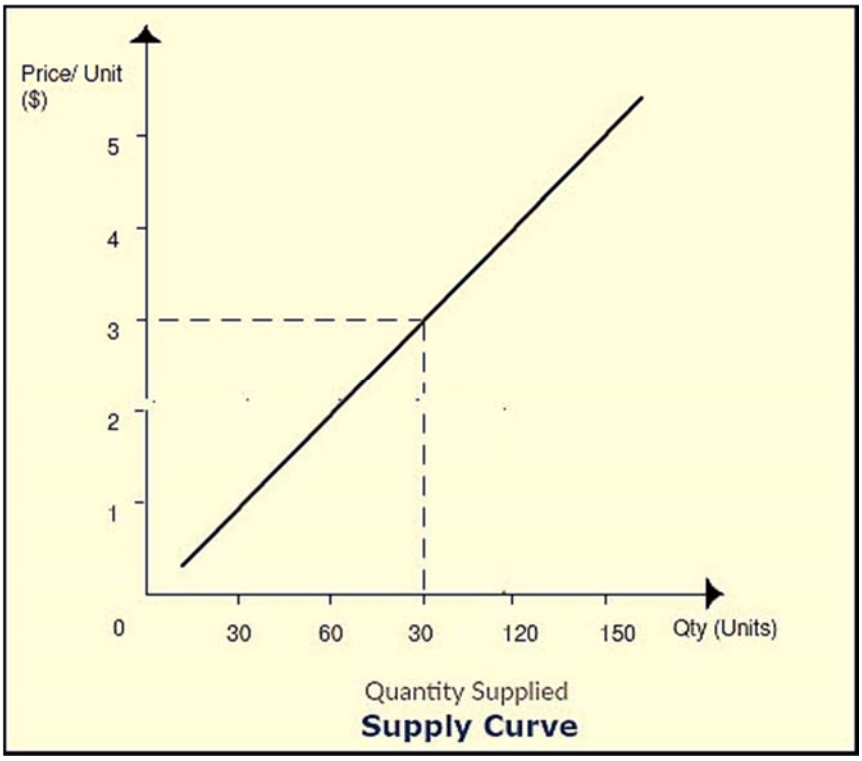
Rita is a college student who wants to earn extra money during winter break. She approaches the owner of a local boutique and asks permission to set up a small coffee bar in front of the store. The owner agrees. As a producer, Rita must decide how much coffee to make and how much to charge per cup. According to the law of supply, she wants to sell the most coffee at the highest price. To accomplish this goal, Rita thinks like an economist.

A **supply schedule**, like a demand schedule, is a tool used by economists to organize data. It is a listing of the various quantities of a particular product

supplied at all possible prices in the market ceteris paribus (all other things being equal). At first glance, it looks just like a demand schedule, but there are important differences. On a demand schedule, prices and quantity demanded move in opposite directions. This happens because the demand schedule supports the law of demand, which states that lower prices increase the quantity demanded by consumers while higher prices decrease the quantity demanded. On the supply schedule, price and quantity supplied move in the same direction. This happens because the supply schedule supports the law of supply, which states that lower prices decrease the quantity supplied by sellers while higher prices increase the quantity supplied. The supply schedule for Rita's coffee business is pictured below.

Supply Schedule for Coffee	
Price Per Cup	**Quantity Supplied**
$5.00	150
$4.00	120
$3.00	90
$2.00	60
$1.00	30

Rita can also study the relationship between price and quantity supplied by moving the figures to a graph. This creates a **supply curve,** which pictures the quantity supplied at each and every price point present in the market place. Rita places the lowest possible price at the bottom of the **vertical axis** and the highest possible price at the top. The **horizontal axis** shows the lowest amount of quantity supplied on the left and the highest on the right. Once Rita plots and connects the pairs of price and quantity-supplied figures on the graph, the supply curve appears as pictured below.



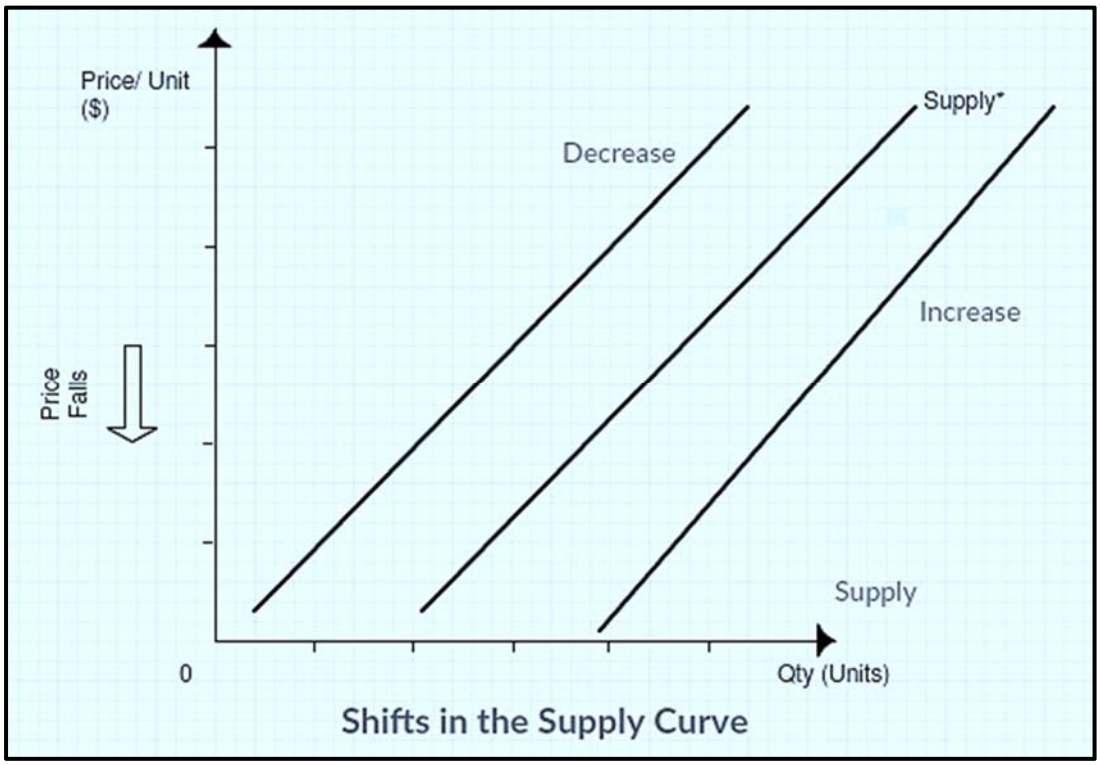
Like the supply schedule, the supply curve is simply another way to envision the law of supply. Notice the supply curve slopes **upward to the right** as opposed to the demand curve, which slopes downward to the right. Whether they are analyzing demand or supply, schedules and curves have similar limitations. Both assume that all other factors that could affect supply or demand remain the same. In terms of supply, for example, the cost of the resources required to make a cup of coffee could increase, or more sellers could set up coffee shops in the same area. However, if price is the only thing that changes, we simply move along the curve to a different quantity supplied. As with demand, the curve itself does not shift in this situation.

Go to Questions 8 through 12.

When Supply Shifts

Changes in price result in changes in the **quantity supplied** but do not shift the entire supply curve as long as nothing else comes into play. Sometimes, however,

certain circumstances, or **determinants of supply**, cause suppliers to offer different amounts of a particular product at all possible price points in the market. This results in a change in supply rather than a change in quantity supplied. It also moves the entire supply curve. When supply increases, the supply curve shifts to the right; when supply decreases, the supply curve shifts to the left.



Just as consumer income, taste and other determinants affect demand at all price levels, a different set of factors impact supply. These include input costs, technology, production changes, expectations, number of sellers and government intervention.

- **Input costs**: Producers use some of the money that they receive for their goods and services to pay input costs. **Input costs** cover a wide range of expenses, including raw materials, transportation, wages and energy. When a manufacturer is forced to pay more for inputs, supply falls at all price levels. This happens because the product becomes more expensive to produce. Therefore, producers offer less, and the entire supply curve shifts to the left. A decrease in input costs has the opposite effect. In this instance, supply increases, and the entire supply curve shifts to the right.

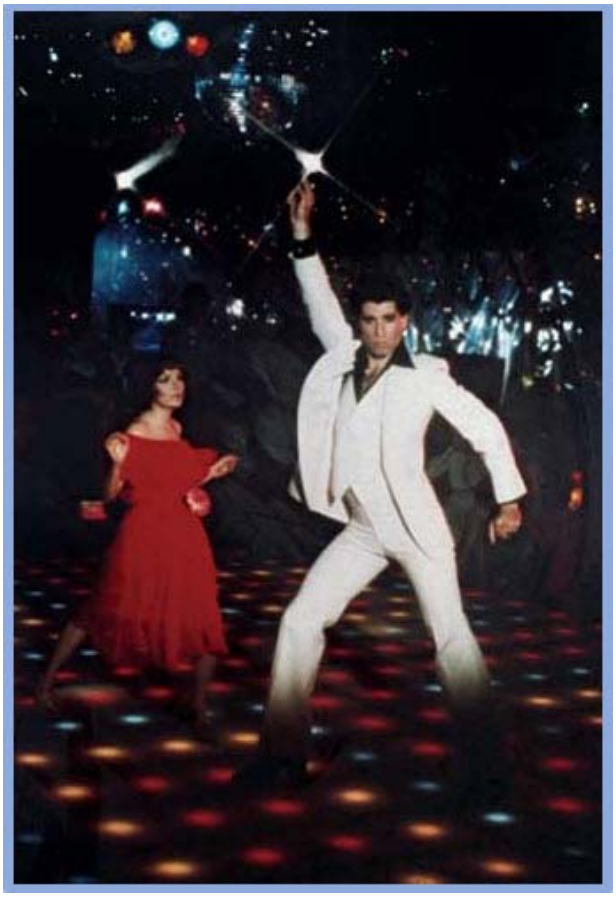
- **Technology**: Technology is another determinant that influences supply. Updated equipment, innovative industrial processes and new chemicals often improve efficiency, lower costs and increase production. This enables producers to create more goods and shifts the supply curve to the right. Although developments in technology usually increase supply, it sometimes has the opposite effect. The accompanying upgrades can be expensive and complicated to install. Replacement parts for new machinery are often difficult to obtain if the equipment breaks down. As these costs add up, producers manufacture less, and the supply curve shifts to the left.

Industrial Robots Moving Products in a German Factory

- **Production Changes**: Sometimes a company reallocates its resources to produce a different item that it believes will earn greater profits. This, too, affects supply. For example, a sporting-goods manufacturer may decide to make fewer footballs and may redirect those same resources to the production of soccer balls. Therefore, the number of footballs that the seller is willing to offer in the marketplace decreases all along the price points of the supply curve. At the same time, the number of soccer balls that the seller is willing to offer in the marketplace increases throughout the supply curve.

- **Expectations**: To achieve their goal of selling at the highest price possible, sellers often try to anticipate changes in the price of a good or service. These expectations also influence supply. If producers believe that prices for certain items will be lower in the future, they may produce and sell as much as possible immediately. This results in a short-term increase in supply, and shifts the supply curve to the right. If, on the other hand, suppliers expect an eventual increase in prices, they may withhold some of their products and sell them later. This creates a temporary decrease in supply, and the supply curve shifts to the left.

- **Number of sellers**: The number of sellers producing a particular product in the marketplace is another determinant of supply. As the amount of firms providing a particular good or service increases, supply increases. If sellers withdraw from the market by going out of business or by deciding to make a different product, less of the good or service is available, and supply, in turn, decreases. Consider this example from the music industry. Disco music became very popular in the late 1970s. Some established groups switched to this style, and new musicians entered the market to take advantage of potential profits. This increased the supply of music artists offering disco music. The disco fad, however, did not last long. Musicians turned to other types of music, and some left the market altogether. The supply of disco music and musicians available to play this style rapidly decreased.



The Disco Craze of the 1970s

- **Government Influence**: In the United States, the government has the authority to affect the supply of many goods and services. One way in which government controls supply is through subsidies. A **subsidy** is a government-issued payment to encourage or protect a particular business or economic activity. It helps an individual, company or group lower production costs and remain in the market. American farmers in the business of providing milk, corn or wheat have sometimes received subsidies to support their incomes. This enabled them to continue operating their farms and to remain in the marketplace. While subsidies remain in effect, supplies increase, and the supply curve for the supported products moves to the right. When the government no longer supports the subsidy, the supply usually decreases, and the supply curve moves to the left.

  Taxes represent another way in which government affects supply. Firms view taxes and fees for operating licenses as costs that make goods and services more expensive to produce. Therefore, a tax increase on businesses

has a negative effect on supply. Tax cuts, on the other hand, have the opposite impact and increase supply. New **regulations** established by law also influence supply. For example, requiring certain safety features, such as air bags and back-up cameras, make cars more expensive to produce. Companies adjust by manufacturing fewer cars. Because this happens at every price point in the market, the supply curve shifts to the left. If regulations are removed or relaxed, however, the supply curve generally shifts to the right.

Go to Questions 13 through 22.

What's next?

In the marketplace, buyers, who control demand, and sellers, who control supply, interact. How can what appears to be competing interests combine to result in a positive outcome for both sides? What is the key that brings buyers and sellers together? In the following unit, you will see what happens when supply meets demand. Before moving on, review the terms found in Unit 5; then, answer Questions 23 through 30.

Go to Questions 22 through 30.