Law of Supply

by Sophia Tutorial

WHAT'S COVERED

This tutorial will cover the law of supply, focusing on how to interpret a supply schedule and graph, and why supply curves are upward sloping.

Our discussion breaks down as follows:

1. What Is Supply?
2. Law of Supply
3. Ceteris Paribus

1. What Is Supply?

Typically in economics, we learn about demand before supply, simply because it is easier to think like a consumer. Demand focuses on behaviors like buying things, and looking for low prices, and not purchasing as much when prices go up.

To fully understand the relationship between price and quantity for supply, you have to think like a supplier or a producer of something. Even if you are not a business owner, you have likely supplied your labor, so supply is definitely relevant in your life.

THINK ABOUT IT

As mentioned, supplying your labor is a supply issue. Suppose your boss offered you minimum wage to work overtime this weekend. How many hours would you supply? Would it be worth your time? Well, what if he offered you $100 per hour. Would you be willing to supply more hours? In this case, it may be well worth your time.

Supply refers to being able to produce something and willing to supply it at a price.

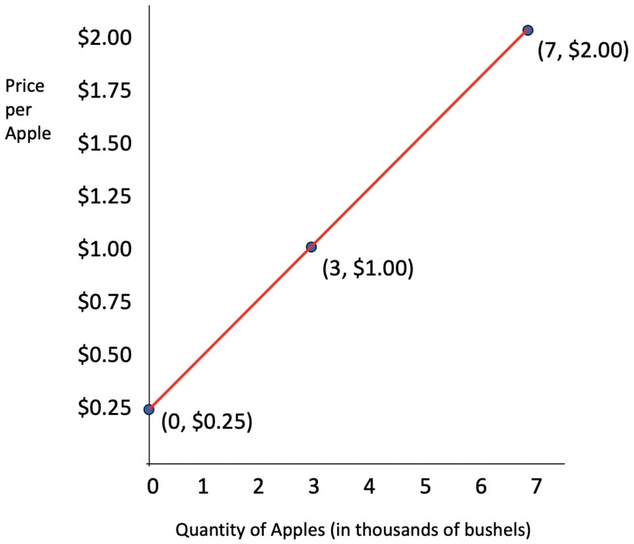
Here is a farmer's willingness to supply apples, detailed in a supply schedule. It shows the different prices of apples and the quantities that he is willing to supply at those different prices. This is similar to if we interviewed farmers and asked them how many apples they would supply at these prices.

HINT

Note, if this were an actual supply schedule, the quantities would reflect thousands or millions, but we are simplifying them for this exercise.

Price of Granny Smith Apples	Quantity of Granny Smith Apples Each Week
$2.00	7
$1.75	6
$1.50	5
$1.25	4
$1.00	3
$0.75	2
$0.50	1
$0.25	0

We can plot these points on a graph, with the price on the y-axis and the quantity on the x-axis. You can see that as the price goes up, the farmer's willingness to supply increases. As the price falls, the farmer is supplying less.



This is a very different relationship between price and quantity than we have with demand. With demand, there is an inverse or negative relationship between price and quantity. With supply, the two variables are moving in the same direction, which is what we would call a positive relationship between price and quantity.

2. Law of Supply

The **law of supply** says that if the price of a good decreases, the quantity supplied decreases. It works the other way as well, meaning if the price of a good increases, the quantity supplied increases. With supply, there is a positive or direct relationship between price and quantity.

So, why is a supply curve upward sloping? Why is there a positive relationship between price and quantity? Let's look at an example to explain the relationship.

IN CONTEXT

With a low market price for apples, only farmers in certain areas in our country would be able to profit from growing apples.

These would include farmers in areas with ideal apple growing conditions, who would not have to pay for technology to make their land suitable for growing apples. Similarly, farmers in areas with relatively low labor costs, far from cities where the labor costs are much higher, would profit from growing apples.

However, as the market price of apples rises, it would become possible for more farmers to get into the apple growing business and make a profit, including those farmers who have to pay to make their land more suitable or pay more money for labor.

In addition, people in other lines of business might find it profitable to change over to apple growing, depending on the opportunity cost, or the value of what they are giving up.

Remember, the **opportunity cost** is defined as the sacrifice made by choosing one value or opportunity over another. It is the value of the foregone opportunity, and supply--someone's ability or willingness to supply something--definitely involves the opportunity cost of deciding to produce it.

TERMS TO KNOW

Law of Supply
If the price of a good decreases, the quantity supplied decreases

Opportunity Cost
The sacrifice made by choosing one value or opportunity over another; the value of the forgone opportunity

3. Ceteris Paribus

Now, when discussing the law of supply, it is important to mention the phrase ceteris paribus, which means holding everything else constant.

As the price of apples falls, as mentioned, we can expect that farmers will produce fewer apples. However, this assumes that only the price of apples has changed. Nothing else has changed, such as the price of their resources or inputs, like fertilizer, or their technology.

So, when we have a change in price, you can see that there is movement along the supply curve.

As the price goes up, the farmers are supplying a greater quantity. As price falls, we move to a point lower and lower on the supply curve.

Because this is only involving a relationship between these two axes here, price and quantity, we do not need to draw a whole new supply curve. We can simply find which point is represented by each price and quantity combination.

This is a change in quantity supplied, not a change in supply itself. For instance, we would not say that the price of apples went up; therefore the supply increased. Instead, we would say that the price of apples went up, so farmers are willing to supply a greater quantity, or the quantity supplied increased.

This is known as **movement along a supply curve**, which is movement caused by a change in price, assuming all other variables are held constant, or the idea of ceteris paribus.

In another tutorial, we will discuss changes other than the price of the good itself that affect production decisions for a particular good, knows as a **shift in supply**. However, in today's lesson, we are focused on the fact that a change in price simply causes movement along the supply curve.

TERMS TO KNOW

Movement Along Supply Curve
Movement caused by a change in price, assuming all other variables are held constant

Shift in Supply
Changes other than the price of the good itself that affect production decisions for a particular good

SUMMARY

Today we learned **what supply is** and how the **law of supply** describes the positive relationship between price and quantity, expressed as an upward sloping supply curve. When we are moving along that supply curve, we hold everything else constant, which is the idea of **ceteris paribus**. Remember, a change in the price of a good or service will cause movement along a supply curve, also known as a change in quantity supplied.

Source: Adapted from Sophia instructor Kate Eskra.

TERMS TO KNOW

Law of Supply
If the price of a good decreases, the quantity supplied decreases.

Movement Along Supply Curve
Movement caused by a change in price, assuming all other variables are held constant.

Opportunity Cost
The sacrifice made by choosing one value or opportunity over another; the value of the forgone opportunity.

Shift in Supply
Changes other than the price of the good itself that affect production decisions for a particular good.