APPLICATIONS OF SUPPLY AND DEMAND

WHY IT MATTERS: APPLICATIONS OF SUPPLY AND DEMAND

Why evaluate the applications of supply and demand?

In the module on supply and demand, we defined a free market as one with no government intervention. In this module, we will learn about the applications of supply and demand to explore the outcomes, both anticipated and otherwise, when government intervenes in a market.

Economists believe there are a small number of fundamental principles that explain how economic agents respond in different situations. Two of these principles, which we have already been introduced to, are the laws of demand and supply.

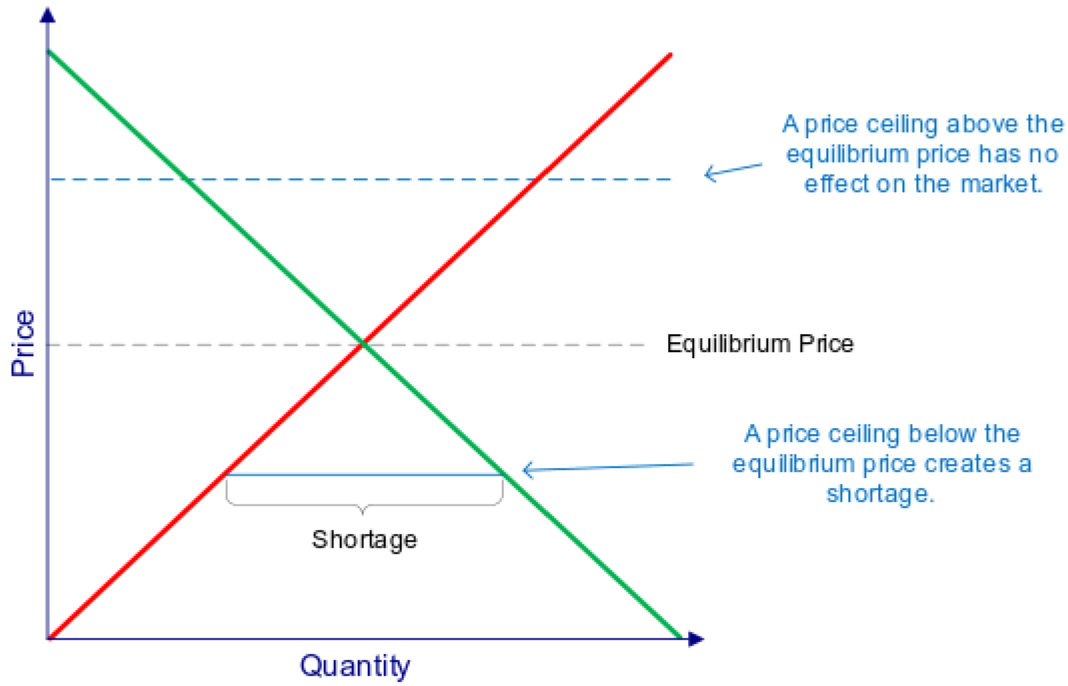
Governments can pass laws affecting market outcomes, but no law can negate these economic principles. Rather, the principles will manifest themselves, sometimes, in unanticipated ways, which may subvert the intent of the government policy. This is one of the major conclusions of this module.

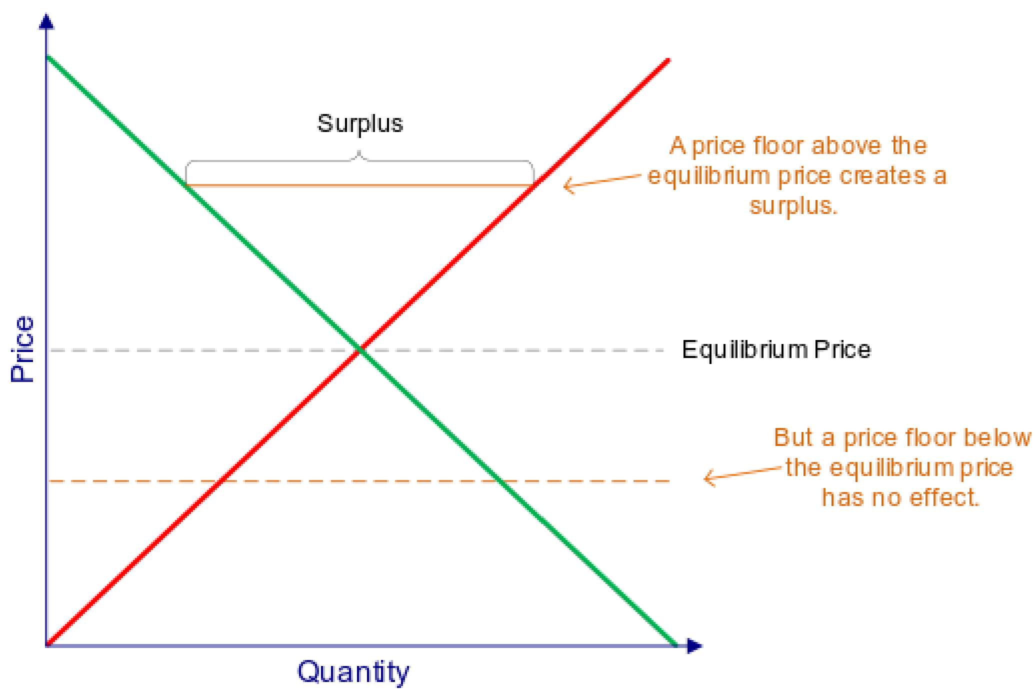
The three best examples of this are:

- Price floors—a legal minimum price in a market, e.g. the minimum wage;
- Price ceilings—a legal maximum price in a market, e.g. rent controls in certain cities;
- Tax incidence—who ends up paying a tax? For example, if the local government adds a sales tax on restaurant meals, is the tax paid by the diners or does it come out of the restaurant's profits? (We'll study more about this in the next module on elasticity).

Understanding all the effects, both anticipated and unanticipated, of government intervention in a market is critical to determining whether the policy achieves its goal.

As you go through this module, make sure to keep in mind who is a given policy (e.g., a minimum wage) supposed to help? Only then you can evaluate whether the policy is a good one or not.


A price ceiling above the equilibrium price has no effect on the market.
Equilibrium Price
A price ceiling below the equilibrium price creates a shortage.
Shortage
Price
Quantity


Surplus
A price floor above the equilibrium price creates a surplus.
Equilibrium Price
But a price floor below the equilibrium price has no effect.
Price
Quantity

INTRODUCTION TO PRICE CEILINGS AND PRICE FLOORS

What you'll learn to do: analyze the economic effect of government setting price ceilings and floors

In this section, we will explore the outcomes, both anticipated and otherwise, when government intervenes in a markets either to prevent the price of some good or service from rising "too high" or to prevent the price of some good or service from falling "too low."

First, we will take a look at what happens when prices are held below the equilibrium level. Governments typically set a price ceiling to protect consumers by making necessary products affordable, but you'll come to see how this sometimes backfires by creating a market shortage.

Next, we will see what happens when a price floor forces prices above a minimum standard, such as a minimum wage. While a minimum wage seems like a great benefit for workers, you'll see that some effects of a minimum wage can actually hurt those in the workforce.

Price Ceilings

Laws that government enacts to regulate prices are called **Price Controls**. Price controls come in two flavors. A **price ceiling** keeps a price from rising above a certain level (the "ceiling"), while a **price floor** keeps a price from falling below a certain level (the "floor").

A price ceiling is a legal maximum price that one pays for some good or service. A government imposes price ceilings in order to keep the price of some necessary good or service affordable. For example, in 2005 during Hurricane Katrina, the price of bottled water increased above $5 per gallon. As a result, many people called for price controls on bottled water to prevent the price from rising so high. In this particular case, the government did not impose a price ceiling, but there are other examples of where price ceilings did occur.

In many markets for goods and services, demanders outnumber suppliers. Consumers, who are also potential voters, sometimes unite behind a political proposal to hold down a certain price. In some cities, such as Albany, renters have pressed political leaders to pass rent control laws, a price ceiling that usually works by stating that rents can be raised by only a certain maximum percentage each year. Some of the best examples of rent controls occur in urban areas, such as New York, Washington D.C., or San Francisco.

Rent control becomes a politically hot topic when rents begin to rise rapidly. Everyone needs an affordable place to live. Perhaps a change in tastes makes a certain suburb or town a more popular place to live. Perhaps locally-based businesses expand, bringing higher incomes and more people into the area.

Price Floors

A **price floor** is the lowest price that one can legally charge for some good or service. Perhaps the best-known example of a price floor is the minimum wage, which is based on the view that someone working full time should be able to afford a basic standard of living. The federal minimum wage in 2016 was $7.25 per hour, although some states and localities have a higher minimum wage. The federal minimum wage yields an annual income for a single person of $15,080, which is slightly higher than the Federal poverty line of $11,880. As the cost of living rises over time, the Congress periodically raises the federal minimum wage.

Price floors are sometimes called "price supports," because they support a price by preventing it from falling below a certain level. Around the world, many countries have passed laws to create agricultural price supports. Farm prices and thus farm incomes fluctuate, sometimes widely. Even if, on average, farm incomes are adequate, some years they can be quite low. The purpose of price supports is to prevent these swings.

The most common way price supports work is that the government enters the market and buys up the product, adding to demand to keep prices higher than they otherwise would be. According to the Common Agricultural Policy reform passed in 2013, the European Union (EU) will spend about 60 billion euros per year, or 67 billion dollars per year (with the November 2016 exchange rate), or roughly 38% of the EU budget, on price supports for Europe's farmers from 2014 to 2020.