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## Supply shifters economics

If you see this message, it means that we have difficulty loading external resources onto our website. If you're behind a web filter, make sure the kastatic.org and .kasandbox.org domains are unlocked. Define the supplied quantity of a good or service and illustrate it using a supply schedule and supply curve. Distinguish the following pairs of concepts: supply and quantity provided, supply schedule and supply curve, movement along and moving in a supply curve. Identify supply changers and determine if a change in a supply changer causes the supply curve to shift to the right or left. What determines the amount of a good or services that sellers are willing to offer for sale? Price is a factor; ceteris paribus, a higher price is likely to encourage sellers to offer a greater amount of a good or service. The cost of production is another determinant of supply. Variables that affect the cost of production include the prices of the factors used to produce the good or service, the returns of alternative activities, technology, vendor expectations and natural events such as weather changes. Yet another factor affecting the quantity of a property that will be offered for sale is the number of sellers - the more sellers of a particular good or service, the greater the quantity offered at any price per period of time. The supplied quantity of a good or service is the amount that sellers are willing to sell at a particular price over a given period, all other things unchanged. Ceteris paribus, receiving a higher price increases profits and encourages sellers to increase the amount they provide. In general, when there are many sellers of a property, an increase in prices leads to an increase in the quantity provided, and this relationship is often referred to as the Law of Supply. We will see, however, through our exploration of the microeconomics, that there are a number of exceptions to this relationship. There are cases where a higher price will not result in an increase in the amount provided. Goods that cannot be produced, such as additional land at the corner of Park Avenue and 56th Street in Manhattan, are set in supply — a higher price cannot result in an increase in the amount provided. There are even cases, which we study in microeconomic analysis, in which a higher price induces a reduction in the amount provided. In general, however, when there are many sellers of a property, an increase in price results in a larger quantity The relationship between price and quantity provided is suggested in a supply schedule, a table that shows the quantities supplied at different prices over a given period, all things not changed. Figure 3.8 A Supply Schedule and a Supply Curve provides a supply schedule for the quantities of coffee that will be supplied per month at various prices, ceteris paribus. At a price of \$4 per pound, for example, producers are willing to provide 15 million pounds of per month. A higher price, say \$6 a pound, encourages sellers to provide a larger quantity — 25 million pounds of coffee per month. Figure 3.9 A Supply Schedule and a Supply Curve The supply schedule indicates the amount of coffee that will be supplied in the United States each month at specific prices, all things not changed. The same information is given graphically in the supply curve. The values given here suggest a positive relationship between the price and the quantity provided. A supply curve is a graphic representation of a supply schedule. It shows the relationship between the price and the quantity provided over a given period, all other things unchanged. Because the relationship between price and quantity is generally positive, supply curves are generally on an upward slope. The coffee supply curve in Figure 3.8 A Supply Schedule and a Supply Curve graphically indicates the values given in the supply schedule. A change in price causes a movement along the supply curve; such a movement is called a change in the quantity provided. As with a required quantity change, a change in the quantity provided does not change the supply curve. By definition, it is a movement along the supply curve. For example, if the price goes from \$6 per pound to \$7 per pound, the amount provided increases from 25 million pounds per month to 30 million pounds per month. This is a movement from point A to point B along the supply curve in Figure 3.8 A Supply Schedule and a Supply Curve. When we draw a supply curve, we assume that other variables that affect sellers' willingness to provide a good or service are unchanged. As a result, a change in any of these variables will result in a change in supply, which is a change in the supply curve. A change that increases the amount of a good or service provided at each price moves the supply curve to the right. Let us assume, for example, that fertilizer prices are going down. This will reduce the cost of producing coffee and thus increase the amount of coffee that producers will offer for sale at each price. The supply schedule for Figure 3.9 An Increase in Supply indicates an increase in the amount of coffee supplied at each price. We show that the increase graphically as a change in the supply curve from S1 to S2. We see that the amount provided at each price increases by 10 million pounds of coffee per month. At point A on the original S1 supply curve, for example, 25 million pounds of coffee per month are supplied at a price of \$6 per pound. The amount of coffee supplied at each price, as is the case in the supply schedule in this case, the supply curve moves to the right. At a price of \$6 per pound, for example, the amount provided increases from the previous level of 25 million pounds per month on the S1 supply curve (point A) to 35 million pounds per month on the S2 supply curve (point A). An event that reduces the amount provided at each price moves the supply curve to the left. Increased production costs and excessive rain that reduces coffee plant yields are examples of events that could reduce supply. Figure 3.10 Reducing supply shows a reduction in the supply of coffee. We see in the supply schedule that the amount of coffee supplied decreases by 10 million pounds of coffee per month at each price. The supply curve thus increases from S1 to S3. Figure 3.10 A Offer Reduction A supply change that reduces the amount provided at each price moves the supply curve to the left. At a price of \$6 per pound, for example, the original amount provided was 25 million pounds of coffee per month (point A). With a new S3 supply curve, the amount supplied at this price drops to 15 million pounds of coffee per month (point A). A variable that can change the amount of a good or service provided at each price is called a supply changer. Supply changers include (1) factor prices, (2) returns on alternative activities, (3) technology, (4) vendor expectations, (5) natural events and (6) number of sellers. When these other variables change, conditions unchanged by the other elements of the original supply curve no longer hold. Let's look at each of the supply quarters. A change in labor prices or another production factor will change the cost of producing a given amount of the good or service. This change in the cost of production will change the amount that suppliers are willing to offer at any cost. Higher factor prices are expected to reduce the amount suppliers will offer at all costs, moving the supply curve to the left. Lower factor prices increase the amount suppliers will offer at any cost, moving the supply curve to the right. Suppose coffee producers have to pay a higher wage to the workers they hire to harvest coffee or have to pay more for fertilizers. Such increases in production costs will cause them to produce a smaller quantity at each price, which will shift the coffee supply curve to the left. Reducing any of these costs increases supply, moving the supply curve to the right. To produce one good or a service is to give up the production of another. The concept of opportunity cost in economics suggests that the value of the abandoned activity is the opportunity cost of the chosen activity; this cost is expected to affect supply. By an opportunity to produce eggs is not to sell chickens. An increase in the price that people are willing to pay for fresh chicken would make it more profitable to sell chickens and thus increase the opportunity cost of egg production. It would shift the egg supply curve to the left, reflecting a decrease in supply. A change in technology changes the combinations of inputs or the types of inputs required in the production process. Improvement generally means that fewer and/or less expensive inputs are needed. If the cost of production is lower, the profits available at a given price will increase and producers will produce more. With more product at each price, the supply curve will move to the right, which means an increase in supply. Impressive technological changes have occurred in the IT industry in recent years. Computers are much smaller and much more powerful than they were only a few years ago, and they are much cheaper to produce. The result was a huge increase in the supply of computers, moving the supply curve to the right. While we usually consider technology to improve production, production declines due to technological problems are also possible. Prohibiting the use of certain equipment without pollution control devices has increased the cost of producing many goods and services, thereby reducing the benefits available at all costs and moving these supply curves to the left. All supply curves are based in part on sellers' expectations of future market conditions. Many production and sales decisions are usually made long before a product is ready for sale. These decisions necessarily depend on expectations. Changes in sellers' expectations can have a significant impact on price and quantity. Take, for example, the owners of oil fields. Oil pumped out of the ground and used today will not be available in the future. If a change in the international political climate leads many homeowners to expect oil prices to rise in the future, they may decide to leave their oil in the ground, intending to sell it later when the price is higher. Thus, there will be a decrease in supply; the oil supply curve will move to the left. Storms, insect infestations and drought affect agricultural production and therefore the supply of agricultural products. If something destroys an important part of an agricultural crop, the supply curve will move to the left. The devastating cyclone that killed more than 50,000 people in Myanmar in 2008 also destroyed some of the country's prime rice farming land. This shifted the supply curve for rice to the left. If there is an exceptionally good crop, the supply curve will move to the right. The supply curve of an industry, such as coffee, includes all vendors in the industry. A change in the number of sellers in an industry changes the amount available at each price thus changes the offer. An increase in the number of sellers providing a good or service shifts the supply curve to the right; a reduction in the number of sellers moves the supply curve to the left. The cell phone market has been affected by an increase in the number of companies offering the service. Over the past decade, new cell phone companies have emerged, shifting the supply curve for cell phone service to the right. There are two special things to note about supply curves. The first is similar to the Heads Up! on-demand curves: it's east carefully distinguish between supply changes and changes in the quantity provided. A change in supply results from a change in a supply changer and involves a shift of the supply curve to the right or left. A change in price results in a change in the quantity provided and induces a movement along the supply curve. A change in price does not change the supply curve. The second caveat relates to the interpretation of supply increases and decreases. Note that in Figure 3.9 An Increase in Supply, an increase in supply is presented as a shift from the supply curve to the right; the curve moves in the direction of increasing the quantity relative to the horizontal axis. In Figure 3.10 A Reduction in Supply, a reduction in supply is presented as a shift from the supply curve to the left; the curve moves in the direction of decreasing the quantity relative to the horizontal axis. Because the supply curve is on an upward slope, a shift to the right produces a new curve that in one direction is below the original curve. Students sometimes make the mistake of viewing such a change as a downward change and therefore as a reduction in supply. Similarly, it is easy to make the mistake of showing an increase in supply with a new curve that is above the original curve. But it's a reduction in supply! To avoid such errors, focus on the fact that an increase in supply is an increase in the amount provided at each price and moves the supply curve in the direction of increasing the quantity on the horizontal axis. Similarly, a reduction in supply is a reduction in the amount provided at each price and shifts the supply curve in the direction of a lower quantity on the horizontal axis. Figure 3.11 The quantity provided of a good or service is the amount that sellers are willing to sell at a particular price over a given period, all things not changed. A supply schedule indicates the quantities supplied at different prices over a given period, all things not unchanged. A supply curve graphically displays the same information. A change in the price of a good or service results in a change in the quantity provided — a movement along the supply curve. A change in a supply changer causes a change in supply, which is shown as a change in the supply curve. Supply changers include the prices of factors of production, returns from alternative activities, technology, vendor expectations, natural events and the number of An increase in supply is presented as a shift to the right of a supply curve; a decrease in supply is presented as a shift to the left. Figure 3.12 Untitled - CC BY 2.0. These are the cookies that have lured the monks of St. Benedict out of the egg industry, and now private retirement sponsorship is attracting them away from cookies. St. Benedict's is a Benedictine monastery, nestled on a high ranch in the Colorado Rockies, about 20 miles down the road from Aspen. The 15 monks of the monastery operate the ranch to support themselves and to help the poor of the region. They they approximately 3,500 acres of their land for cattle and sheep farmers, produce cookies and sponsor private retreats. They were producing eggs. Attracted by the potential profits and peaceful nature of the work, the monks entered the egg industry in 1967. They had 10,000 chickens producing their brand of monastery eggs. For a while, business was good. Very well. Then, in the late 1970s, the price of chicken feed began to rise rapidly. When we started in the business, we were paying \$60 to \$80 a tonne for food, recalls the monastery's abbot, Father Joseph Boyle. By the late 1970s, our cost had more than doubled. We were paying \$160 to \$200 a tonne. It really hurts, because food is a big part of the cost of producing eggs. The monks have adapted to the blow. When grain prices were lower, we would pull a ton of chicken for a few weeks to moult, and then we would return to spawning. After the increase in grain prices, it was 12 months of laying and in the soup pot, explains Father Joseph. Grain prices continued to rise in the 1980s and increased the production costs of all egg producers. It caused the egg supply to drop. Demand has declined at the same time, with Americans worried about cholesterol in eggs. Times have become more difficult in the field of eggs. We were still making money in the financial sense, says Father Joseph. We tried an experiment in 1985 by producing cookies, and it was a success. We finally decided that devoting our time and energy to cookies would pay better than the egg industry, so we left the egg industry in 1986. The case of mail-order biscuits was good for the monks. They sold 200,000 ounces of monastery biscuits in 1987. By 1998, however, they had limited their biscuit production, selling only locally and to gift shops. Since 2000, they have moved to providing private pensions for individuals and groups, or about 40 people per month, according to Brother Charles. Calculating the opportunity costs of the monks revealed that they would earn a higher return through the sponsorship of private pensions than in cookies or eggs. This projection proved correct. And there's another advantage, too. The chickens didn't stop laying eggs on Sunday, Father Joseph said with a laugh. When we turned to cookies, we could take a leave of absence on Sundays. We weren't hemmed in the way we were with the chickens. The transition to pensions is even better in this regard. Since the guests provide their own meals, most of the monastery's efforts go into the end and planning, which frees up even more of their time for other mundane as well as spiritual activities. DVD rental store clerks are a production factor in the DVD rental market. An increase in their wages increases the cost of production, which leads to the shift of the supply curve of DVD rentals to the left [Panel a]. (Warning: You may think that the wage increase was an increase in income, a change in demand, which would lead to an increase in demand, but that would be incorrect. The question question only for the salaries of DVD rental store clerks. They can rent a DVD, but their impact on total demand would be negligible. In fact, we have no information on what has happened overall to the incomes of people who rent DVDs. We do know, however, that the cost of a production factor, which is a supply changer, has increased.) An increase in the price of DVD rental does not change the supply curve at all; rather, it corresponds to an upward movement to the right along the supply curve. At a higher price of P2 instead of P1, a greater amount of DVD rentals, for example Q2 instead of Q1, will be provided [Panel b]]. An increase in the number of stores that rent DVDs will cause the supply curve to shift to the right [Panel c]]. Figure 3.13 3.13