

Introduction to Economics

Lecture 3

MGM112
Supply

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Chapter
03

Supply

If a firm supplies a good or service, then the firm:

1. Has the resources and the technology to produce it,
2. Can profit from producing it, and
3. Has made a definite plan to produce and sell it.

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Supply

The quantity supplied of a good or service is the amount that producers plan to sell during a given time period at a particular price

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The Law of Supply

- The law of supply states:

- Other factors being constant (ceteris paribus), price and quantity supplied of any good and service are positively related to each other.

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The Law of Supply



Chapter
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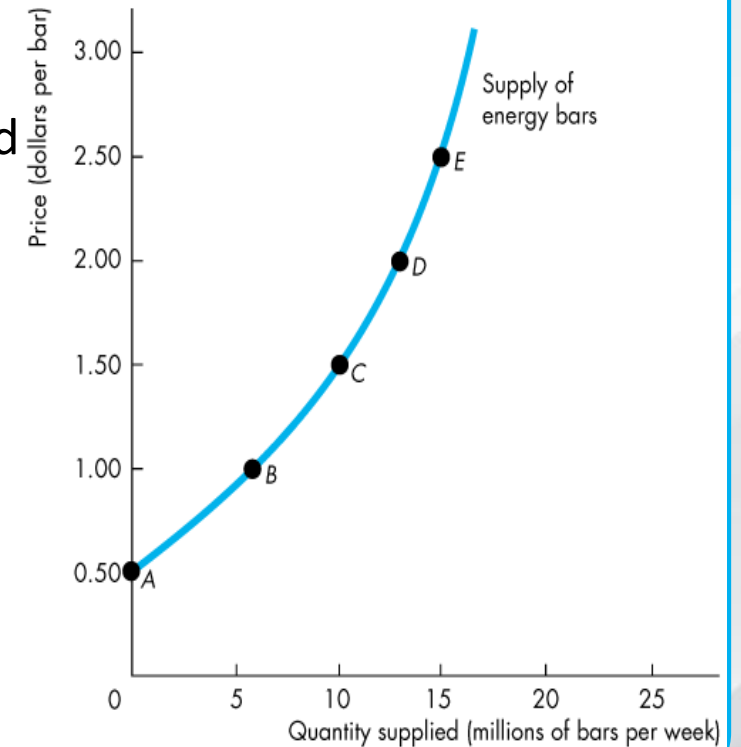
The Law of Supply

- The law of supply states:
 - The higher the price of a good, the greater is the quantity supplied.
 - The lower the price of a good, the smaller is the quantity supplied.

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The Law of Supply

- The law of demand is illustrated by:
 - **An upward-sloping supply curve** drawn with the quantity supplied on the horizontal axis and the price on the vertical axis
 - **The slope is positive** to show the positive relation between P & Q_s



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Change in Quantity Supplied

- The Price of the good is the only one factor that affects Quantity Supplied $\Delta P \rightarrow \Delta Q_s$

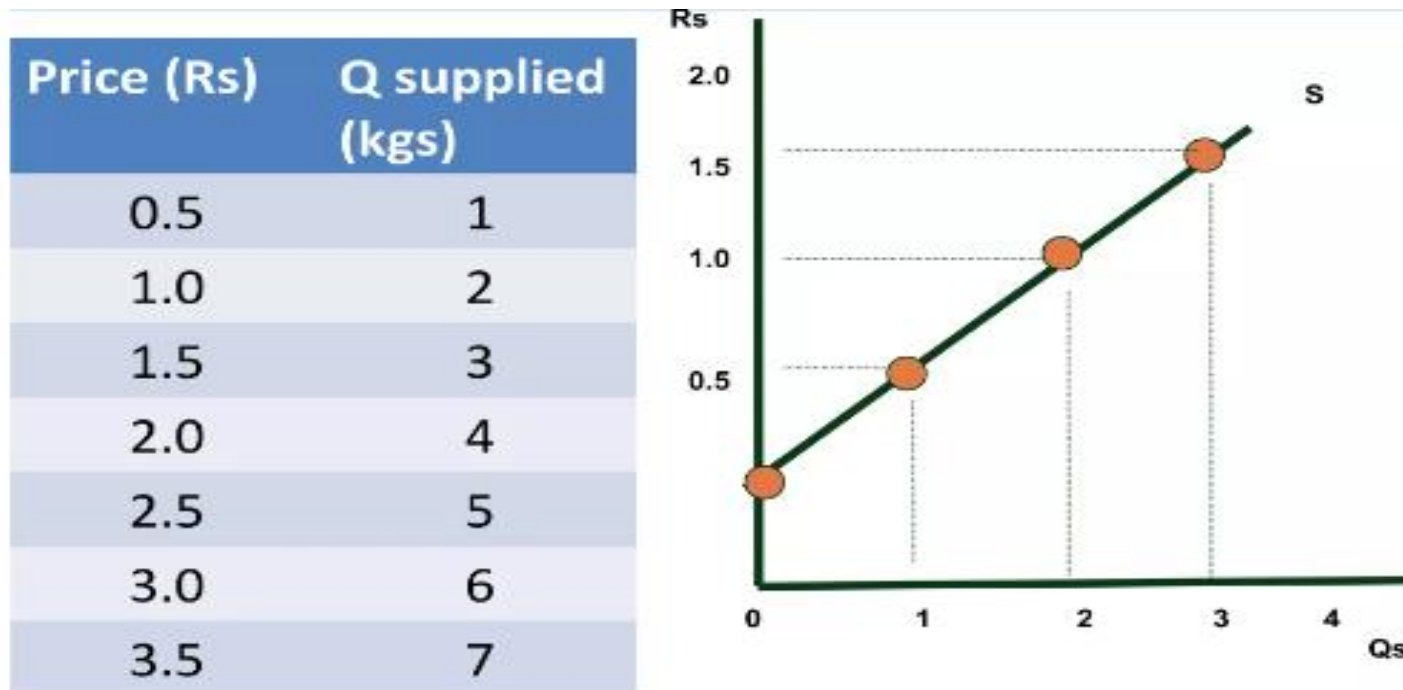
Change the Price of the good $\rightarrow$ Change in quantity Supplied $\rightarrow$ Movement along the Supply curve

- $P \downarrow \rightarrow Q_s \downarrow \rightarrow$ Move down along supply curve.
- $P \uparrow \rightarrow Q_s \uparrow \rightarrow$ Move up along supply curve

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Change in Quantity Supplied

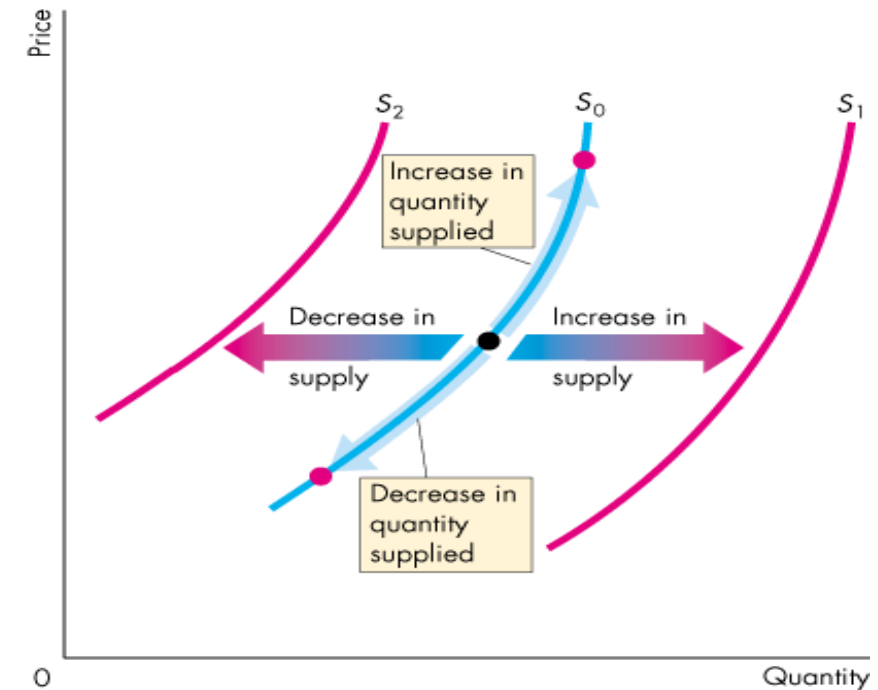
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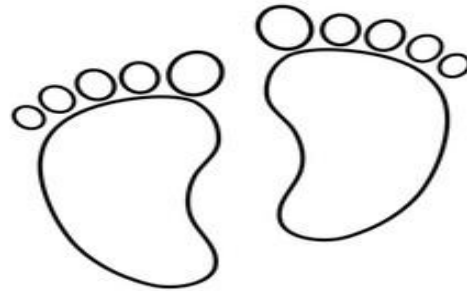
Change in Supply

- When price is constant, as the **other Factors** that affects the supply of the good changes, **Supply** will change
- **Shift** Supply curve at **given price level**
 - Factor changes $\rightarrow S \uparrow \rightarrow$ Shift Right
 - Factor changes $\rightarrow S \downarrow \rightarrow$ Shift Left



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Change in Supply

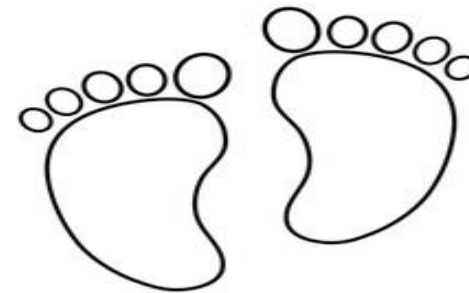


“I.N.S.T.E.P”

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Change in Supply

- ***At given price level, the Main factors that change supply are:***
- **I**nputs (-)
- **N**umber of suppliers (+)
- **S**tate of nature (-)
- **T**echnology (+)
- **E**xpected future prices (-)
- **P**rices of related goods produced)
 - (substitute (-) or complementary (+))



“I.N.S.T.E.P”

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Change in Supply

1) Inputs (-VE)

- If the **price of a factor of production** or materials needed to produce a good rise,
- The **minimum price** that a supplier is willing to accept for producing each quantity of that good rises.
- the **costs of production** increases
- This exerts a Negative effect on the **supply curve** shifting it leftward.

So, the price of a factor of production has a Negative relation with supply curve.

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Change in Supply

2) Number of suppliers (+VE)

- The larger the number of suppliers of a good, the greater is the supply of the good.
- This exerts a positive effect on the supply curve shifting it rightward.

So, Number of suppliers has a positive relation with supply curve.

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Change in Supply

3) State of nature(-VE)

- The state of nature includes all the natural forces that influence production—for example, the weather.
- A natural disaster decreases supply and shifts the supply curve leftward.

So, the State of nature has a Negative relation with supply curve.

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Change in Supply

4) Technology(+VE)

- When use **Advances in technology** or Achieve Improvements in machines and production leads to
- Increase **productivity** and create new products
- Lower **the cost of producing** existing products.
- This exerts a positive effect on **the supply curve** shifting it rightward

So, Technology has a positive relation with supply curve

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Change in Supply

5) Expected future prices(-VE)

- If the expected future price of a good rises, the supply of the good today decreases and the supply curve shifts leftward

So, Expected future prices of goods has a Negative relation with supply curve

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Change in Supply

6) Prices of related goods produced:



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Change in Supply

6) Prices of related goods produced:Substitute goods (-VE)

- A substitute in production for a good is another good that can be produced using the same resources.
- The supply of good increases if the price of a substitute in production falls.
 $P. \text{ coffee} \downarrow \rightarrow Q_s. \text{ coffee} \downarrow \rightarrow \text{supply. tea} \uparrow$
 - A decrease in the price of a substitute(coffee),
 - increases the supply of Tea
 - The supply curve of tea shifts rightward, and vice versa

So, the price of substitute goods has a Negative relation with supply curve.

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Change in Supply

6) Prices of related goods produced:**Complementary goods (+VE)**

- Goods are complements in production if they must be produced together.
- The supply of good increases if the price of a complement in production rises.
P. sugar ↓ → Qs. sugar ↓ → supply. tea ↓
 - A decrease in the price of a complement (sugar),
 - decreases the supply of Tea
 - The supply curve of tea shifts leftward, and vice versa

So, the price of Complementary goods has a Positive relation with supply curve.

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The supply curve & the willingness -to-sell

- A supply curve is a minimum-supply-price curve, because the minimum price is:
- The lowest price at which supplier is willing to sell an additional unit of output.
- As a result, the price is **the marginal cost (MC)** of the last unit produced at this level of output.).
 - (Minimum. $P = MC$)
- For any fixed quantity of a good available, the greater the quantity available, the higher Mc

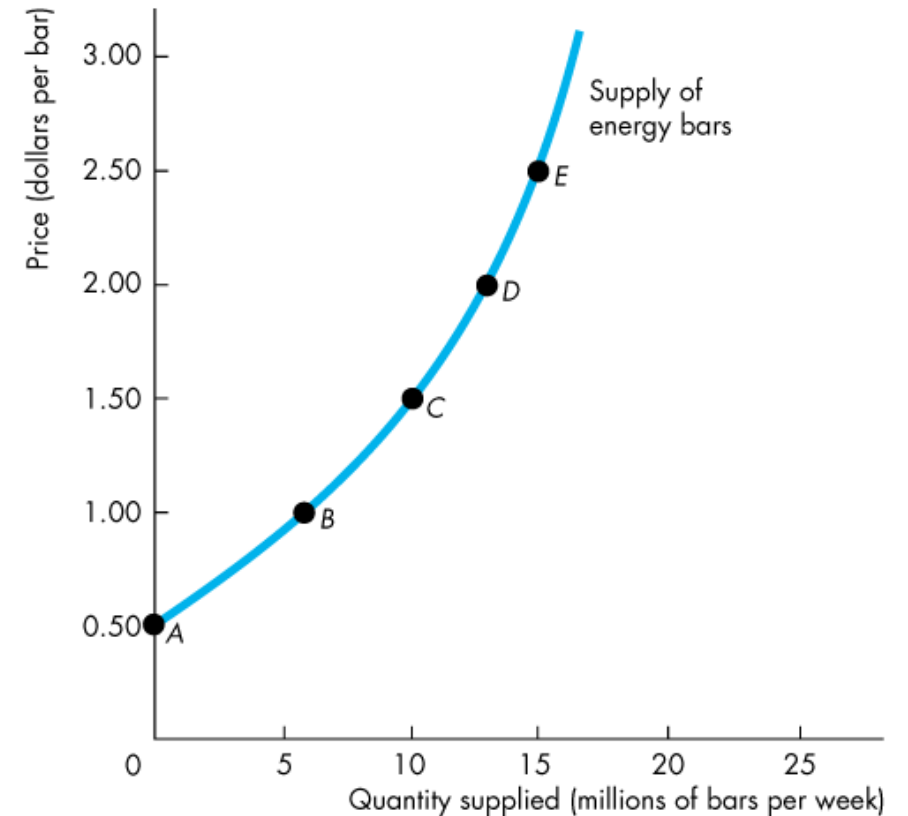
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The supply curve & the willingness -to-sell

- If available quantity of good 10 units, the producer is

WTS = MC = P = 1.50 (At C)

- If available quantity of good decreases to 5 units, the producer is **WTS = MC = P = 1 (At B)**

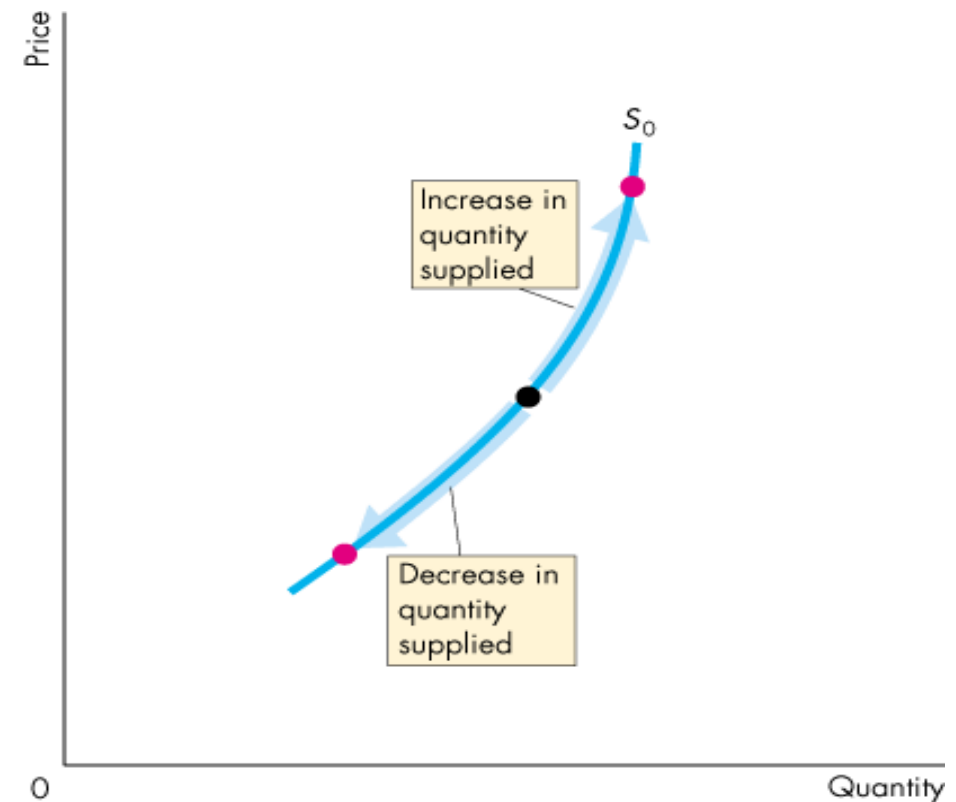


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A Change in the Quantity Supplied Vs a Change in Supply

Movement Along the Supply Curve

When the price of the good changes and other influences on sellers' plans remain the same, the quantity supplied changes and there is a movement along the supply curve.

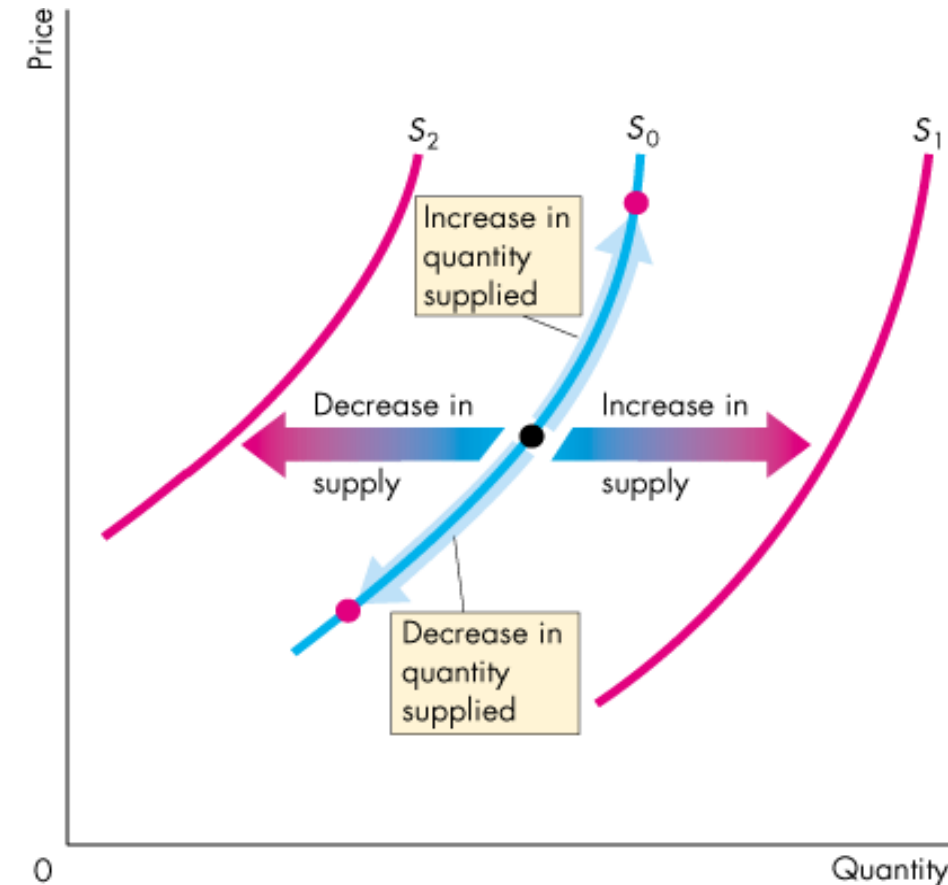


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A Change in the Quantity Supplied Vs a Change in Supply

A Shift of the Supply Curve

If the price remains the same but one of the other Factors on sellers' plans changes, supply changes and the supply curve shifts.



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A Change in the Quantity Supplied Vs a Change in Supply

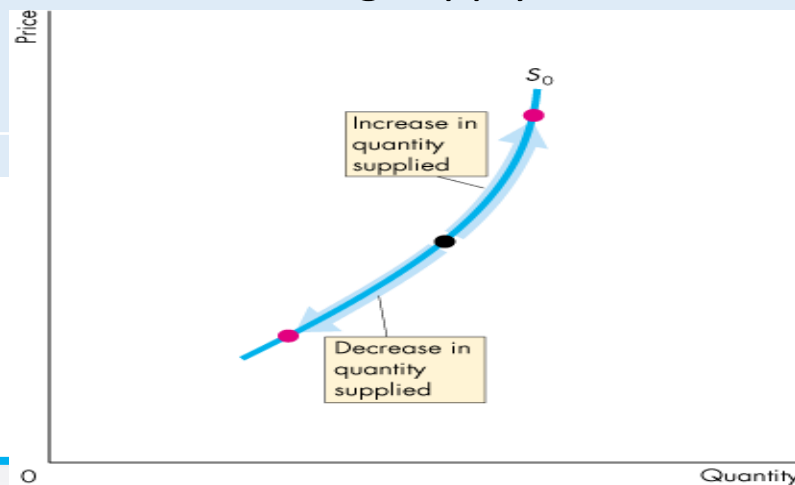
- **What happens to the quantity of energy bar supplied and the supply of energy bar if the price of energy bar falls?**
 - If the price of energy bar falls and all other factors are constant, then the quantity of energy bar supplied will decrease and there is a movement down along the supply curve for energy bar.
 - But, the supply of energy bar remains unchanged, and the supply curve does not shift.
 - Because price does not influence or lead to shift in supply curve, price is the only factor that leads to change the Quantity supplied and cause a movement along supply curve

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A Change in the Quantity Supplied Vs a Change in Supply

Change Quantity supplied

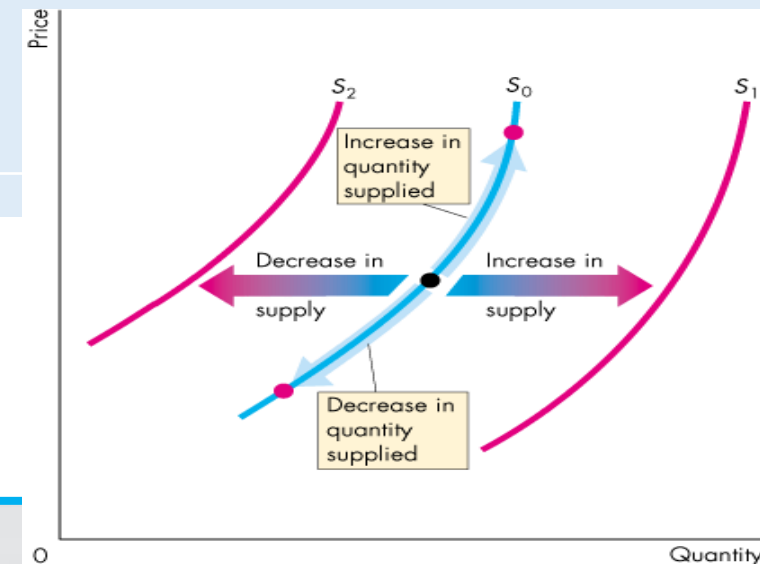
- Other factors constant, as the **price change**, Quantity supplied will change at same direction
- Movement** along supply curve



Change Supply curve

When price is constant, as the **other factors** on producing plans change, Supply will change.

Shift Supply curve at given price level.



Think

The quantity supplied of a good or service is the amount that-----

- A) producers wish they could sell at a higher price.
- B) is actually bought during a given time period at a given price.
- C) people are willing to buy during a given time period at a given price.
- D) producers plan to sell during a given time period at a given price.**



Think

The "law of supply" refers to the fact that, all other things remaining the same, when the price of a good rises-----

- A) the supply curve shifts leftward.
- B) the supply curve shifts rightward.
- C) there is a movement up along the supply curve to a larger quantity supplied.**
- D) there is a movement down along the supply curve to a smaller quantity supplied.



Think

A supply curve shows the relation between the quantity of a good supplied and-----

- A) income. Usually, a supply curve has negative slope.
- B) income. Usually, a supply curve has positive slope.
- C) the price of the good. Usually, a supply curve has negative slope.
- D) the price of the good. Usually, a supply curve has positive slope.**



Think

Which of the following is NOT held constant while moving along a supply curve?

- A) expected future prices
- B) the number of sellers
- C) the price of the good itself**
- D) prices of factors of production



Think

Each point on a supply curve represents-----

- A) the highest price buyers will pay for the good.
- B) the lowest price for which a supplier can profitably sell another unit.**
- C) the lowest price buyers will accept per unit of the good.
- D) the highest price sellers can get for each unit over time.



Think

An increase in the number of fast-food restaurants-----

- A) raises the price of fast-food meals.
- B) increases the demand for fast-food meals.
- C) increases the supply of fast-food meals.**
- D) increases the demand for substitutes for fast-food meals.



Think

Which of the following decreases the supply of popcorn?

- A) a decrease in the price of popcorn
- B) an increase in the price of popcorn
- C) a technological advance in the production of popcorn
- D) a decrease in the number of popcorn producers**



Think

Which of the following increases the supply of popcorn?

- A) a decrease in the price of popcorn
- B) an increase in the price of popcorn
- C) a technological advance in the production of popcorn**
- D) a decrease in the number of popcorn producers



Think

A change in which of the following would NOT shift the supply curve for sneakers?

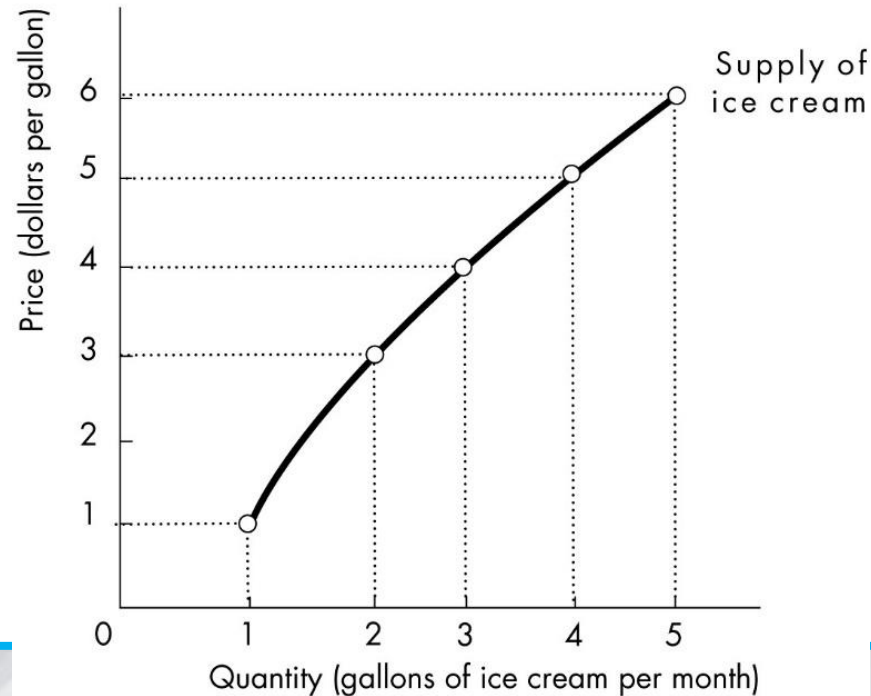
- A) an increase in technology for making sneakers
- B) an increase in the price of rubber, used to make sneakers
- C) an increase in the price of sneakers**
- D) None of the above, that is, each change shifts the supply curve.



Think

In the figure, what is the minimum supply price for the Second gallon of ice cream?

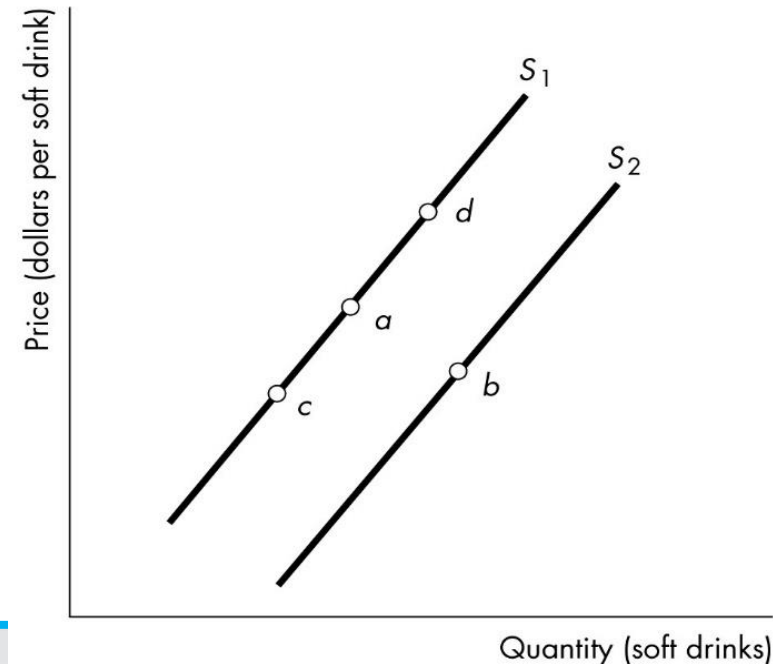
- A) \$2.00
- B) \$3.00**
- C) \$4.00
- D) \$5.00



Think

The figure shows supply curves for soft drinks. Suppose the economy is at point *a*. A movement to point *c* could be the result of

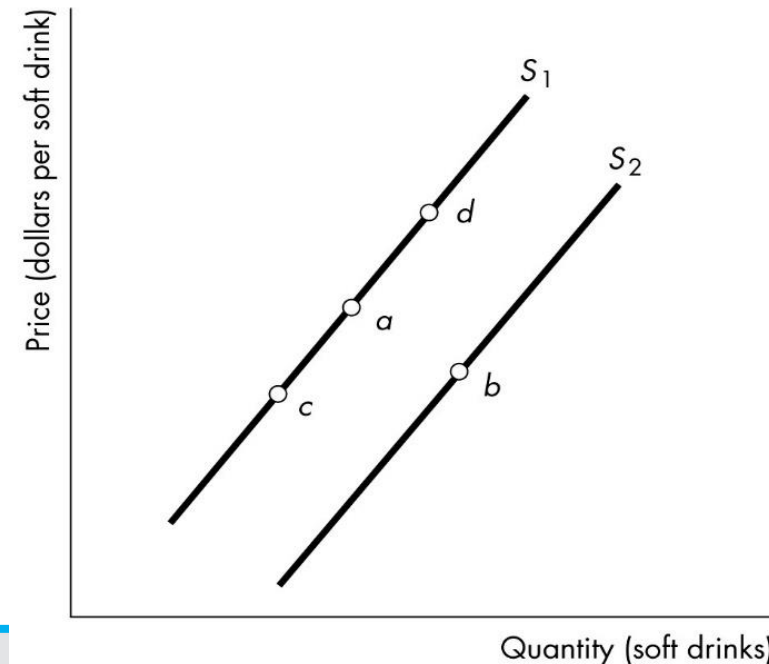
- A) a decrease in technology.
- B) a decrease in the relative price of a soft drink.**
- C) an increase in the relative price of a soft drink.
- D) an increase in the money price of a soft drink.



Think

The figure above shows supply curves for soft drinks. Suppose the economy is at point *a*. An increase in the price of a soft drink is shown as a movement from point *a* to

- A) none of the points that are illustrated.
- B) point *b*.
- C) point *c*.
- D) point *d*.**



Summary outlines

1. Supply
2. The Law of Supply
3. Change in Quantity Supplied
4. Change in Supply Curve
5. The Supply curve & the willingness -to-sell.
6. A Change in the Quantity Supplied Vs a Change in Supply



Thank You