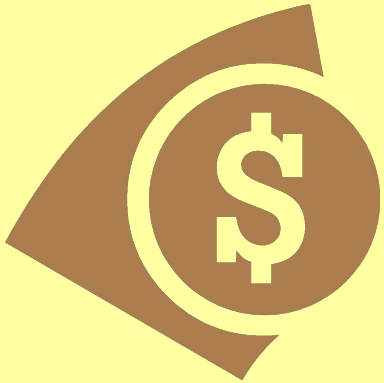
NIS

SUPPLY

11.2A

Lesson 3



Learning Objectives

(1 min)

By the end of the lesson the learners will be able to :

- **Define and understand the terms**
  - **Supply**
  - **Movement along and shift in the Supply curves**
- **Analyse and apply the concept to real world situation .**

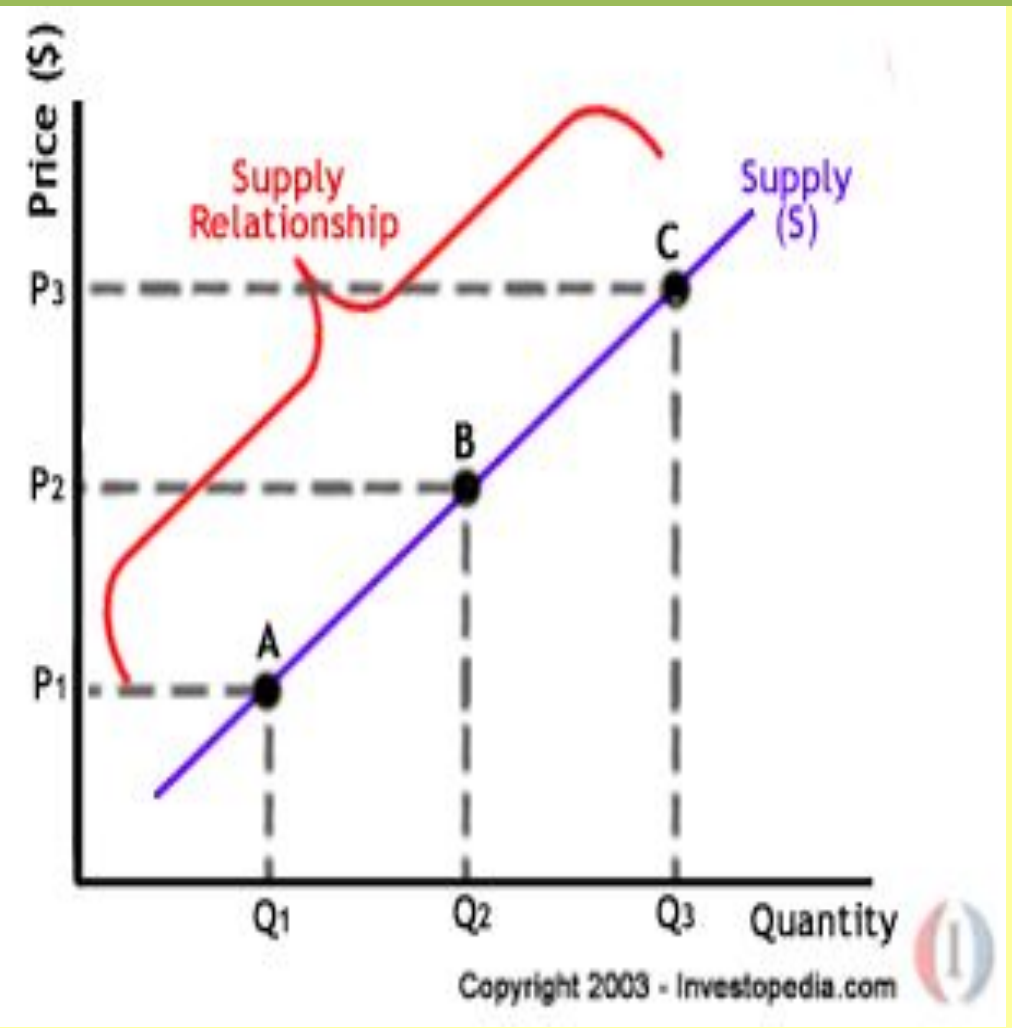
SUPPLY

Willingness to sell product at various given prices at a given point of time

Supply Curve

Price	Quantity Supplied per Month
$15	5,000
12	4,000
9	3,000
6	2,000
3	1,000

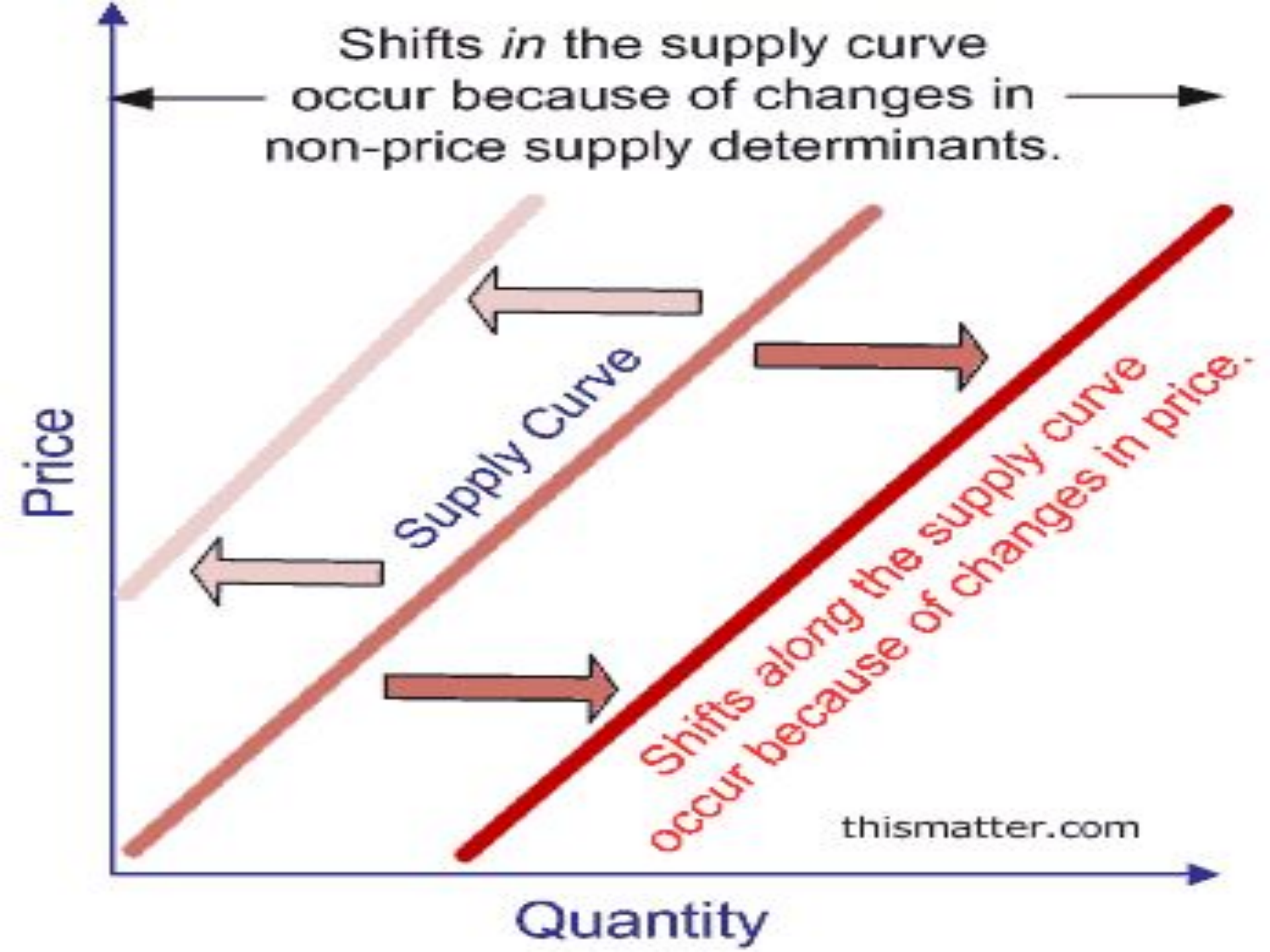
Movement along the Supply Curve



Movement along the Supply curve is due to the change in price only. Other factors are kept constant .

Movement from **Point A to B**: Extension in Supply/Increase in Quantity Supplied - P ↑ QD ↑

Movement from **Point C to B**: Contraction in Supply/Decrease in Quantity Supplied - P ↓ QD ↓


Shifts *in* the supply curve occur because of changes in non-price supply determinants.
Supply Curve
Shifts along the supply curve occur because of changes in price.
thismatter.com
Price
Quantity

Shifts in supply curve

SPENT
S = Supplier prices (FOP)
P = Price of related goods
E = Expected price in future
N = Number of sellers
4Ts= Tax
Technology
Temperature
Tampering

Law of Supply

Price

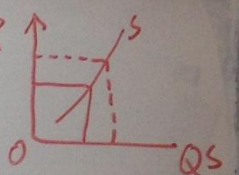
↑P → ↑QS
↓P → ↓QS

+ Other things being equal / Constant / Fixed.

MOVEMENT ALONG THE SUPPLY CURVE

→ Extension in S. → A to B.

→ Contraction in S → C to B.



SHIFT IN THE SUPPLY CURVE

Δ in other factors

① Price of related goods.

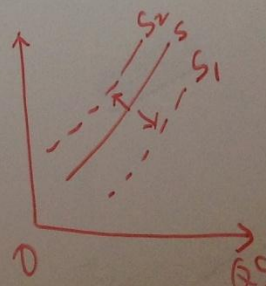
↑P_{Rice} → ↑QS_{Rice} → ↓QS_{wheat} (substitute in production)

↑P leather → ↑QS leather → ↑QS leather bag. (complementary in production)

② ↑Technology → ↑QS (right shift)

③ ↓ P inputs → ↓C → ↑QS (")

- ↓ rate of interest ↓ P raw materials
- ↓ P import
- ↓ wage/salary
- ↓ price land



④ Weather / climate →

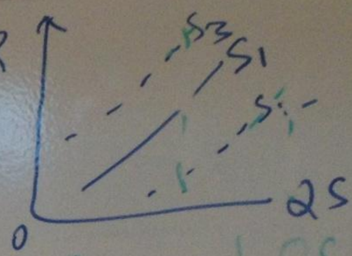
Favourable → ↑QS
Unfavourable → ↓QS.

⑤ Government intervention.

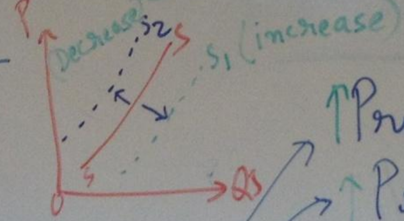
↑Taxes → ↓QS
↑Tariff / Quotas → QS ↓

⑥ ↑Number of Sellers → QS ↑

C = Cost of Production



(4) Shifts in Supply Curve



S → Suppliers input prices
- ↑Prices of land → ↑C → ↓QS
- ↑Price/wage/salaries of labours/workers. → ↑C → ↓QS
- ↑Price of raw materials → ↑C → ↓QS.
- ↑Price of money/capital → ↑C → ↓QS

P → Prices of related goods
- → Complementary goods in Supply.
  - Example: ↑P Leather bag → ↑QS Leather
- → Substitute goods in Supply
  - Example: ↑P Rice → ↑QS Rice → ↓QS Wheat

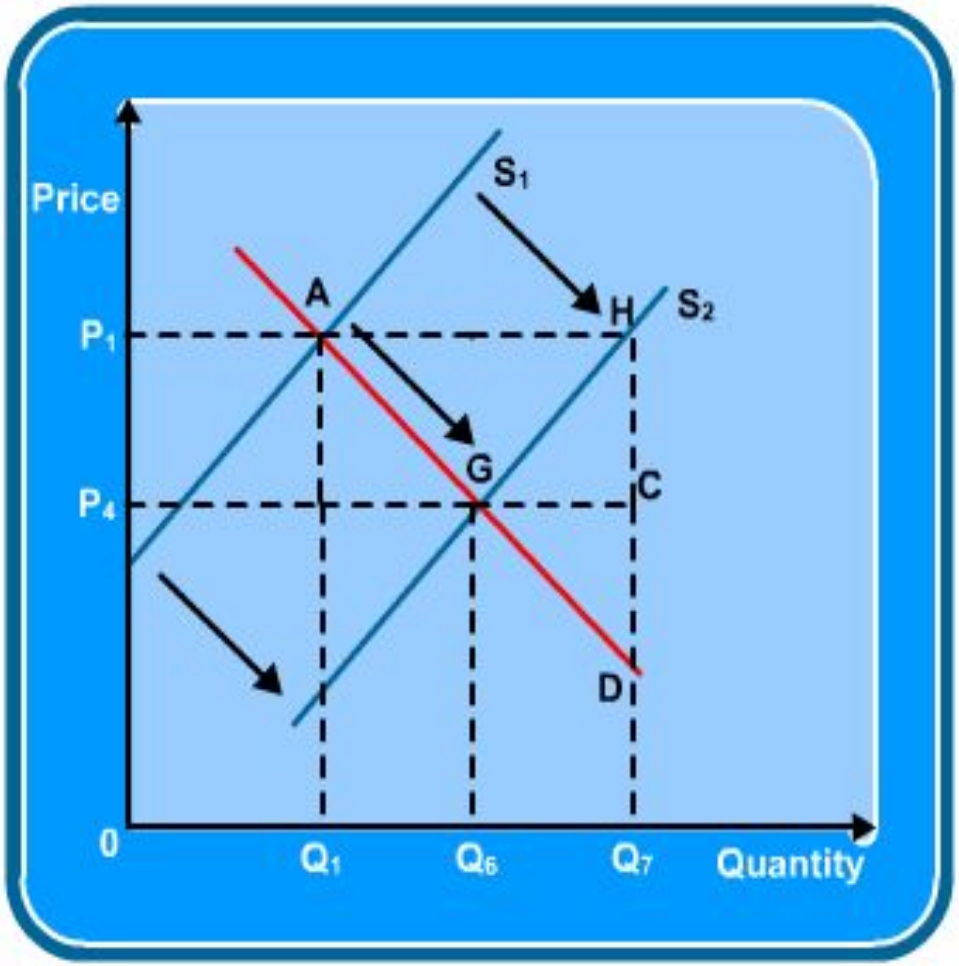
E → ↑Expected future price →↓QS (Now)

N → ↑Number of Suppliers → ↑QS.

T
- → Technology
  - → New → ↑QS
  - → old → ↓QS
- → Temperature/Weather
  - → Favourable → ↑QS
  - → Unfavourable → ↓QS
- → Tempering (government Restrictions)
  - ↑Taxes → QS↓
  - → ↑Tariff → ↓QS

- ↑Quotas → ↑QS
- Ban → ↓QS
- ↓Subsidies → ↓QS

Supply curve shifts to the right

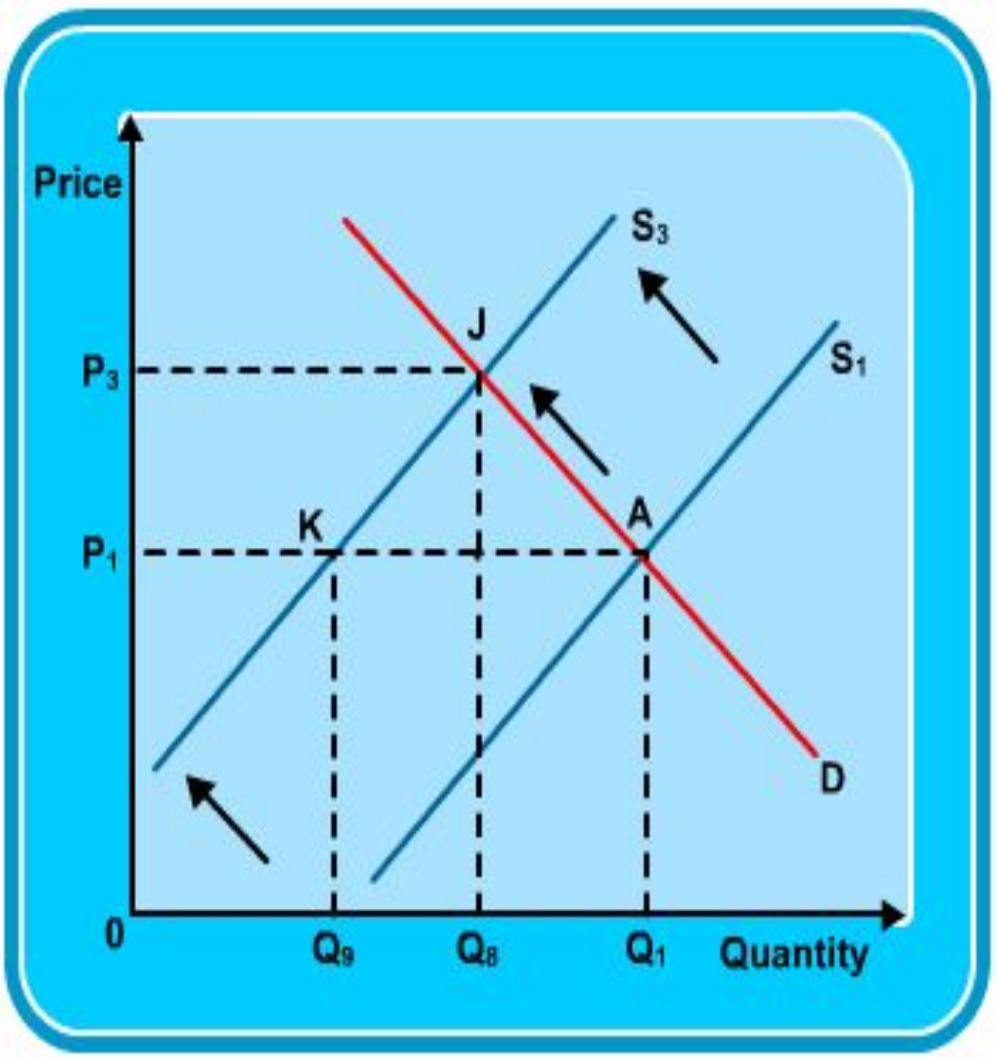


Why might the supply curve shift to the right?

- Fall in wage costs
- Fall in raw material costs
- Improved labour productivity
- Reduced indirect taxes
- Increased subsidies
- Improved technology
- Entry of new firms into the industry

Initial equilibrium: P_1, Q_1 (A)
New equilibrium: P_4, Q_6 (G)

Supply curve shifts to the left



Why might the supply curve shift to the left?

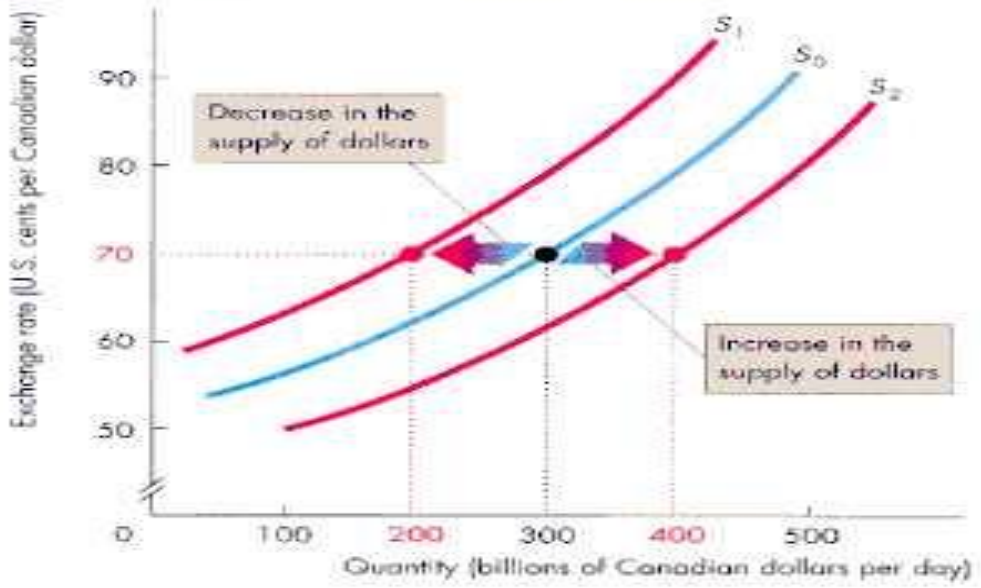
- Rise in wage costs
- Rise in raw material costs
- Reduced labour productivity
- An increase in indirect taxes
- Reduced, or elimination of, subsidies
- The exit of existing firms from the industry

Initial equilibrium: P_1, Q_1 (A)
New equilibrium: P_5, Q_8 (J)

Example: Case Study

FIGURE 36.7

Changes in the Supply of Dollars



A change in any influence on the quantity of Canadian dollars that people plan to sell, other than today's exchange rate, brings a change in the supply of Canadian dollars.

The supply of Canadian dollars:

Increases if:

- The Canadian interest rate differential decreases
- The expected future exchange rate falls

Decreases if:

- The Canadian interest rate differential increases
- The expected future exchange rate rises

Recap of Today's Lesson

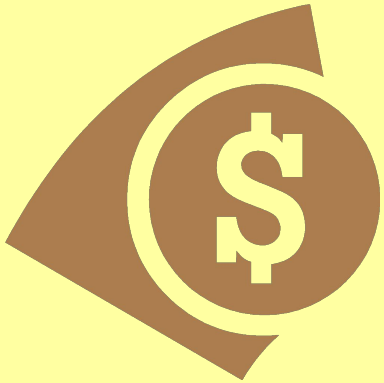
Reflection

NIS

SUPPLY

11.2A

Lesson 4



Learning Objectives

(1 min)

By the end of the lesson the learners will be able to :

- **Define and understand the terms**
  - **Supply Function**
  - **Plot supply curve from an given equation**
- **Analyse and apply the concept to real world situation .**

Supply Function

Supply Function indicates the relationship between the of the quantity commodity supplied and the unit price of the commodity.

Equation:

$\mathbf{Q_s = c + dP}$

Q_s = quantity of a good supplied

P = is the price of the good

c = vertical intercept (max supply)

d = the slope of the supply curve

Supply Function

c = Autonomous level of supply (how much would be produced if the price is zero)-vertical intercept

d = the price coefficient of supply (how much quantity will increase for every $1 increase in price. Higher the **d** variable, higher the producer responsive to the price change and vice versa) - the slope of the supply curve

Example

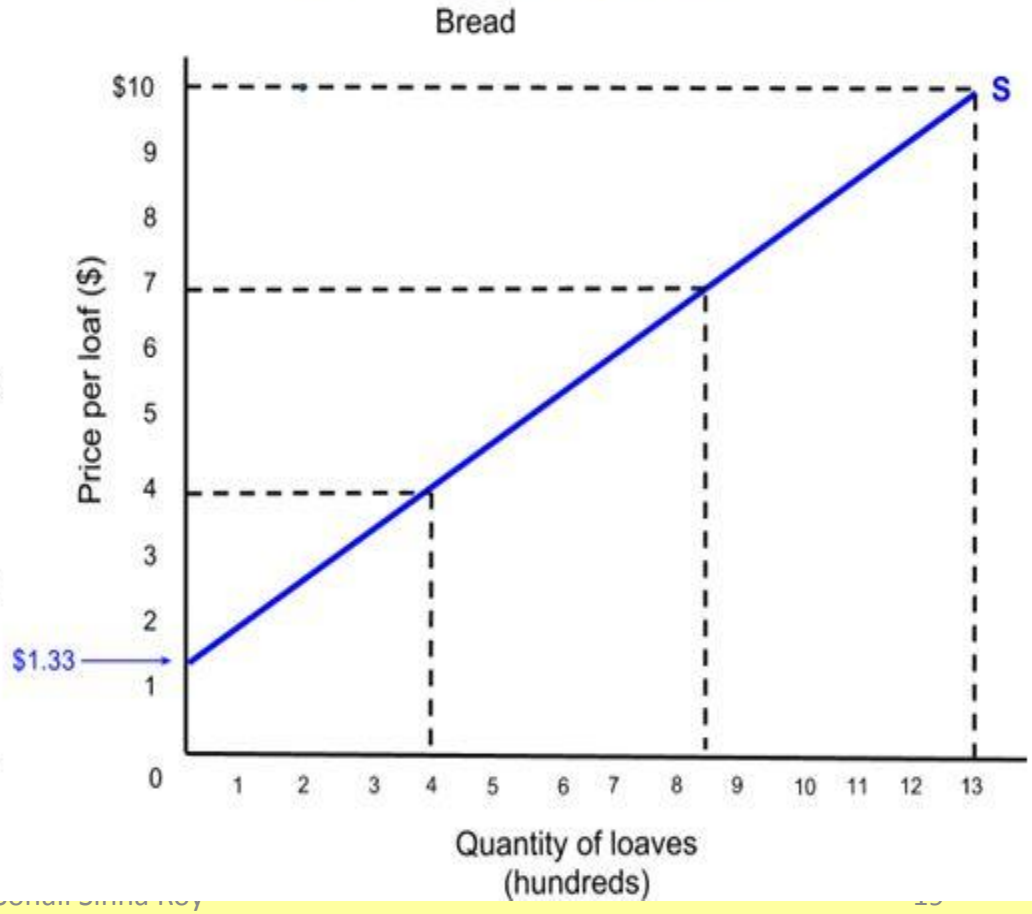
Linear Supply Equations – the Supply Curve

The data from our supply schedule can easily be plotted on a graph. All we need is two points from the schedule to plot our curve.

$$Qs = -200 + 150P$$

Notice that:

- The Q-intercept is not visible on our graph, since the Q-axis only goes to the origin
- The P-intercept is labeled at $1.33. This indicates that until the price of bread is $1.33 per loaf, no firms will be willing to make bread.
- The gradient of the curve is representative of the 'd' variable, which tells us that for every $1 increase in price, quantity rises by 150 loaves of bread. 'd' is the change in quantity over the change in price.



Supply Function

The slope of a supply curve is usually positive , as price increases, quantity supplied increases and vice-versa.

The y-intercept of the supply curve (0,b) represents the lowest price at which an item will be supplied.

In Class Activity

Use the linear supply equation for haircuts in your town, Qs=-100+20P to answer the questions that follow:

1. Create a schedule showing the supply of haircuts in your town at prices of $10, $20, $30, $40, and $50.
2. Calculate the price-intercept of your supply curve, and then use the data from your supply schedule to plot a supply curve for haircuts.
3. Assume that due to a decrease in rents on business space in your town, the number of salons increases, increasing the 'c' variable in your supply equation to -50. Create a new supply schedule based on the new supply equation, and then plot your new supply curve on your graph.
4. Assume due to a change in labor laws, it becomes more difficult for salons to hire and fire hair stylists, reducing the responsiveness of salons to changes in the price of haircuts. This leads to a fall in the'd' variable in the supply equation to 10. Create a new supply schedule based on the new supply equation, and then plot your new supply curve on your graph.
5. Besides the two non-price factors described above, identify at least five other factors that can lead to a change in the supply of haircuts or a change in the responsiveness of salons to price changes.

Recap of Today's Lesson

Reflection