Economics: Meaning and issues

The problems are:

1. What to Produce and in What Quantities?

This involves allocation of scarce resources in relation to the composition of total output in the economy. Since resources are scarce, the society has to decide about the goods to be produced: wheat, cloth, roads, television, power, buildings, and so on.

2. How to Produce these Goods?

This problem is primarily dependent upon the availability of resources within the economy. If land is available in abundance, it may have extensive cultivation. If land is scarce, intensive methods of cultivation may be used. If labour is in abundance, it may use labour-intensive techniques; while in the case of labour shortage, capital-intensive techniques may be used.

3. For whom is the Goods Produced?

The allocation of basic consumer goods or necessities and luxuries comforts and among the household takes place on the basis of among the distribution of national income. Whosoever possesses the means to buy the goods may have then. A rich person may have a large share of the luxuries goods, and a poor person may have more quantities of the basic consumer goods he needs.

4. How Efficiently are the Resources being Utilised?

If the idleness of resources, say manpower, land or capital, is due to their male allocation, the society will have to adopt such monetary, fiscal, or physical measures whereby this is corrected.

5. Is the Economy Growing?

Economic growth takes place through a higher rate of capital formation which consists of replacing existing capital goods with new and more productive ones by adopting more efficient production techniques or through innovations.

Microeconomics: The allocation of scarce resources

- Study of how individuals and firms make themselves as well off as possible in a world of scarcity and the consequences of those individual decisions for markets and the entire economy.
- Examine how individual consumers and firms make decisions and how the interaction of many individual decisions affects the market and the entire economy.
- Explains how the actions of all the buyers and sellers determine prices and how prices influence the decisions and actions of individual buyers and sellers

Positive versus Normative

- **Positive Statement:** A testable hypothesis about cause and effect

A World Bank economist predicted that if an African government used price controls to keep the price of food low during a drought, food shortages would occur and people would starve. A scientific prediction about the relationship between cause and effect: Price controls (cause) lead to food shortages and starvation (effect).

'Positive' does not mean that we are certain about the truth of our statement but it only indicates that we can test the truth of the statement.

If the World Bank economist is correct, should the government control prices?

If the government believes the economist's predictions, it knows that the low prices help those consumers who are lucky enough to be able to buy as much food as they want while hurting both the firms that sell food and the people who are unable to buy as much food as they want, some of whom may die. Hence, the government's decision whether to use price controls turns on whether the government cares more about the winners or losers.

- **Normative Statement:** A conclusion as to whether something is good or bad

Instead of first making a prediction and testing it before making a value judgement to decide whether to use price controls, the government could make a value judgement directly. The value judgement could be based on the belief that “because people *should* have prepared for the drought, the government *should not* try to help them by keeping food prices low.” Alternatively, the judgement could be based on the view that “people *should* be protected against price gouging during a drought, so the government *should* use price controls.”

Important Concepts: Learn throughout the chapter

- **Demand:** The quantity of a good or service that consumers demand depends on price and other factors like consumer's incomes and the price of related goods etc.
- **Supply:** The quantity of a good or service that firms supply depends on price and other factors such as the cost of inputs firms use to produce the good or service
- **Market Equilibrium:** Interaction between consumer's demand and firms' supply determines the market price and the quantity of a good or service that is bought and sold
- **Shocking in the Equilibrium:** Changes in a factor that affect demand (like consumers' income), supply (like rising in the prices of inputs), or a new government policy (like a new tax) alter the market price and quantity of a good.
- **When to use the Supply-and-Demand Model:** Applies only to competitive market

LAW OF DEMAND

Assumptions

The law of demand is based on the following assumption or conditions:

- No change in consumer's income: Consumer's income must remain unchanged because if income increases consumer may buy more even at a higher price invalidating the law of demand.
- No change in the size and composition of population: The size of population, gender ratio and age composition are assumed to remain constant. As such changes are sure to affect demand.
- No change in consumer's taste, preference, habits and fashions: If the taste changes then the consumer's preference also will change which will affect demand. When commodities go out of fashion then demand will be low even at a low price.
- No expectation of future price change: The consumers do not expect any significant rise or fall in the future prices.
- No change in prices of related goods: The law assumes that prices of substitutes and complementary goods remain constant.
- No change in tax policy of the Government: The level of direct and indirect tax imposed by the government on the income and goods should remain constant.

Law of Demand and Determinants of Demand

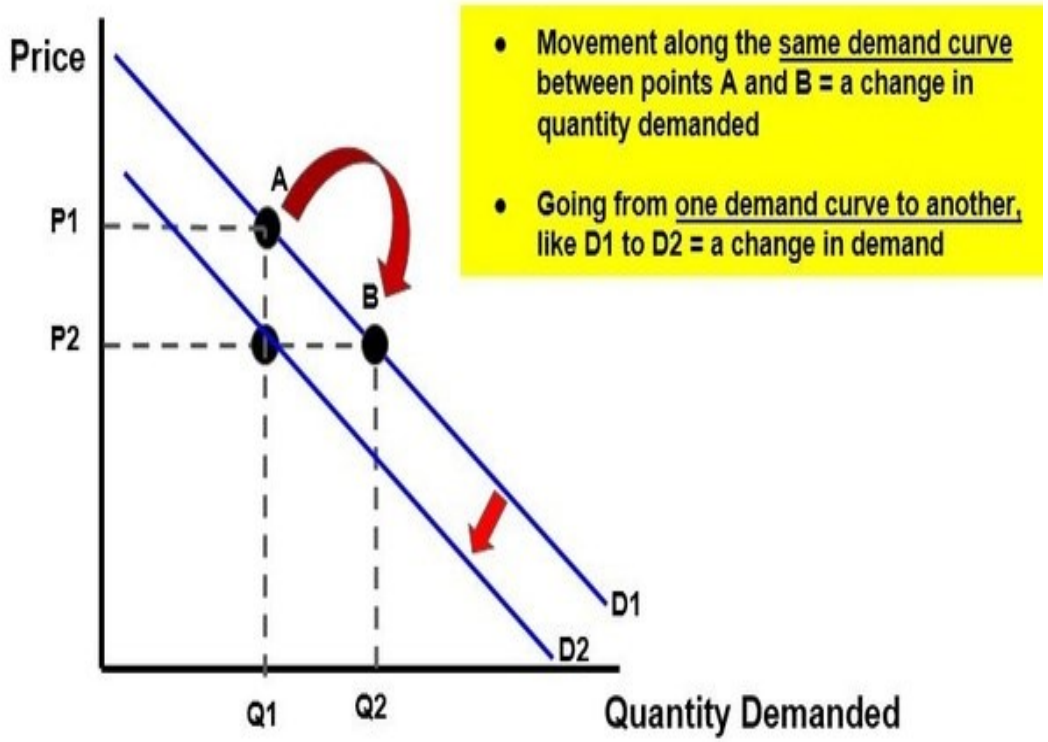
- ***The law of demand:*** It states that other factors being constant (cetris peribus), price and quantity demand of any good and service are inversely related to each other. When the price of a product increases, the demand for the same product will fall.

- ***Determinants of Demand:*** The prices of other commodities, consumers' income and tastes. Other determinants are the distribution of income, total population and its composition, wealth, credit, availability, stocks and habits. The last two factors allow for the influence of past behaviour on the present, thus rendering demand analysis dynamic.

Quantity Demanded vs. Quantity Demand

When there is a change in the **quantity demanded** of a particular commodity, because of a change in price, with other factors remaining constant, there is a movement of the quantity demanded along the same curve. The result of a change in the price of the commodity is shown by a movement from one point to another on the same demand curve. It is related to the expansion and contraction of demand.

When there is a change in the **quantity demand** of a particular commodity, at each possible price, due to a change in one or more other factors (prices of other commodities, incomes, and tastes), the demand curve shifts. The result of the effect of changes in other determinants is shown by a shift in the demand curve. The important aspect to remember is that other factors like the consumer's income and tastes along with the prices of other goods, etc., which were expected to remain constant, changed. It is related to the increase and decrease in demand.



The Market Demand

- The market demand for a given commodity is the horizontal summation of the demands of the individual consumers. In other words, the quantity demanded in the market at each price is the sum of the individual demands of all consumers at that price. In the following figure, when the price of the good X is 2 i.e. when Px=2, consumer 1's demand is 1 unit and consumer's 2 demand is 2 units. Hence, the market demand at Px=2 will be 3 units.

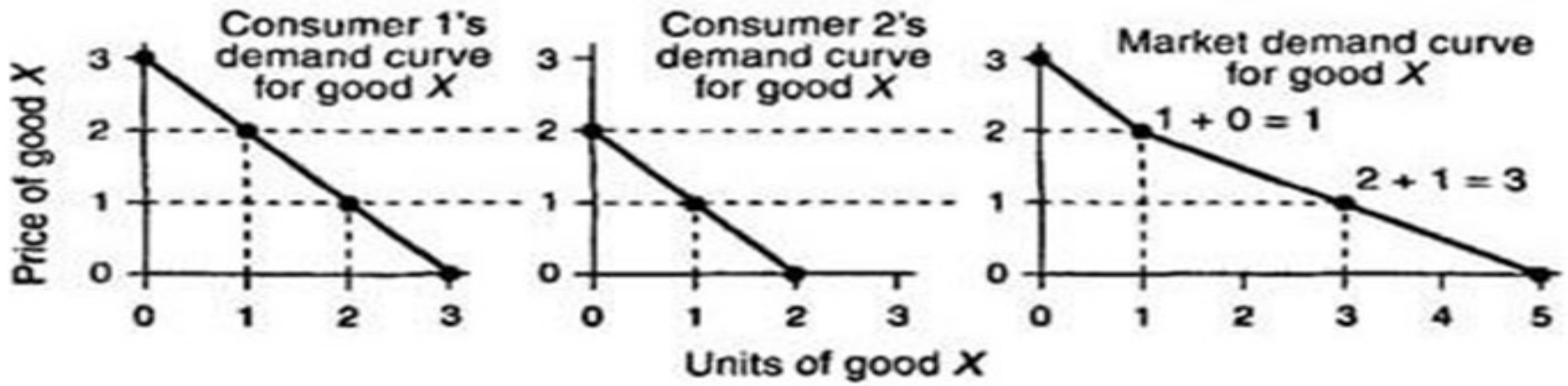


Figure 1 Derivation of the market demand curve from consumers' individual demand curves

Exceptions To The Law Of Demand

Speculative Demand: In a speculative market (such as the stock market), a rise in the price of a commodity (such as, share) creates an impression among buyers that its price will rise further. So people start buying more of a share when its price rises. This is not truly an exception to the law of demand in the sense that the demand curve here is not upward sloping. Hence, there is no movement along it from left to right. In fact, in a speculative market, we see a shift of a normal downward sloping demand curve— people buy more at the same price. Some people wrongly refer to this as an exception because they get confused between the two issues—movement along a demand curve and a shift of the demand curve.

Snob Appeal or Veblen Good: People sometimes buy certain commodities like diamonds at high prices not due to their intrinsic worth but for a different reason. The basic object is to display their riches to the other members of the community to which they themselves belong. This is known as 'snob appeal', which induces people to purchase items of conspicuous consumption. Such a commodity is also known as Veblen good (named after the economist Thorstein Veblen) whose demand rises (fails) when its price rises (falls). A costly book is often considered to be more useful by a student than a cheaper title. In such cases, the demand curve may be upward sloping. This argument is not a new one. This applies to our previous case where we referred to commodities having snob appeal. So this point really reinforces the previous one.

Giffen Good: A 'Giffen good' is a special variety of inferior good. Sir Robert Giffen of Scotland observed in the 19th century (the 1840s) that poor people spent the major portion of their income on a staple item, viz., potato. If the price of this good rises they will become so poor that they will be found to spend less on other items and buy more potatoes in order to get a minimum diet and keep themselves alive. For such goods, the demand curve will be upward sloping.

Possibility of Future Rise in Prices: If a consumer anticipates that the price of a commodity will rise in the future he will purchase more of that commodity now. The consumer will purchase more even if the current price is high.

Highly Essential Good: Finally, in the case of certain highly essential items such as life-saving drugs, people buy a fixed quantity at all possible prices. Heart patients will buy the same quantity of 'Sorbitrate' whether the price is high or low. Their response to price change is almost nil.

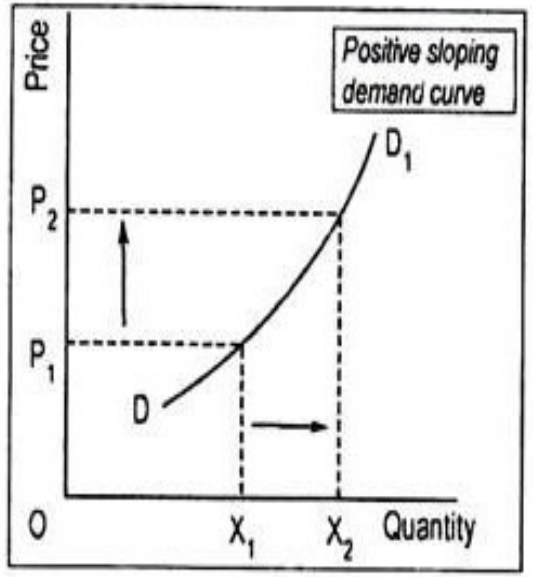


Fig: Exception to the law of demand

LAW OF SUPPLY

What is Supply?

Supply refers to the quantity of a commodity which producers or sellers are willing to produce and offer for sale at a particular price', in a given market, at a particular period of time. A rise in price almost always leads to an increase in the quantity supplied of that good or service, while a fall in price will decrease the quantity supplied.

When the price of gasoline rises, for example, it encourages profit-seeking firms to take several actions: expand exploration for oil reserves; drill for more oil; invest in more pipelines and oil tankers to bring the oil to plants where it can be refined into gasoline; build new oil refineries; purchase additional pipelines and trucks to ship the gasoline to gas stations; and open more gas stations or keep existing gas stations open longer hours. Economists call this positive relationship between price and quantity supplied—that a higher price leads to a higher quantity supplied and a lower price leads to a lower quantity supplied—the law of supply.

Assumptions

- There is no change in the prices of the factors of production.
- There is no change in the technique of production.
- There is no change in the goal of firm.
- There is no change in the prices of related goods.
- Producers do not expect change in the price of the commodity in the near future.

Law of supply: It states that other factors remaining constant, price and quantity supplied of a good are directly related to each other. In other words, when the price paid by buyers for a good rises, then suppliers increase the supply of that good in the market.

Law of supply depicts the producer behavior at the time of changes in the prices of goods and services. When the price of a good rises, the supplier increases the supply in order to earn a profit because of higher prices.

The diagram shows the supply curve that is upward sloping (positive relation between the price and the quantity supplied). When the price of the good was at P3, suppliers were supplying Q3 quantity. As the price starts rising, the quantity supplied also starts rising.

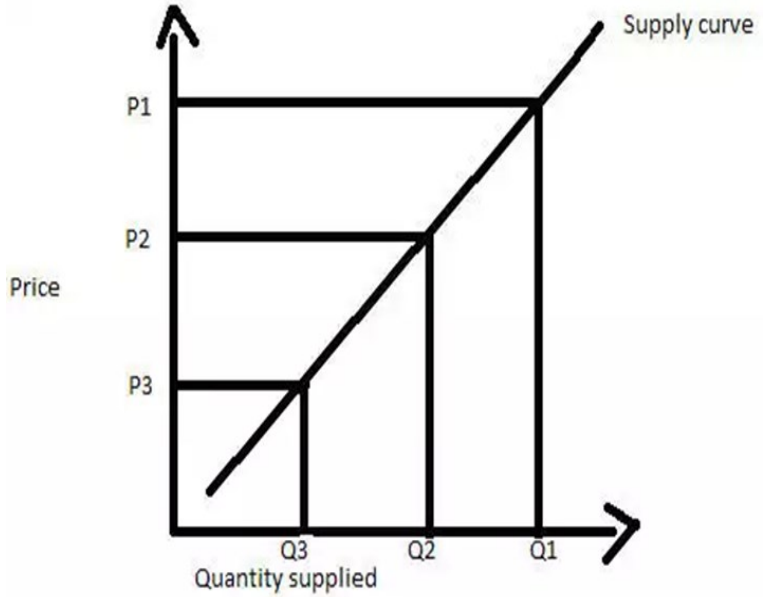


Fig: Law of supply

Determinants of Supply

- The price of the product or service
- The price of related goods or services
- The prices of production factors
- The price of inputs
- The number of production units
- Production technology
- Expectations of producers
- Government policies
- Random, natural or other factors

Quantity Supplied Vs. Quantity Supply

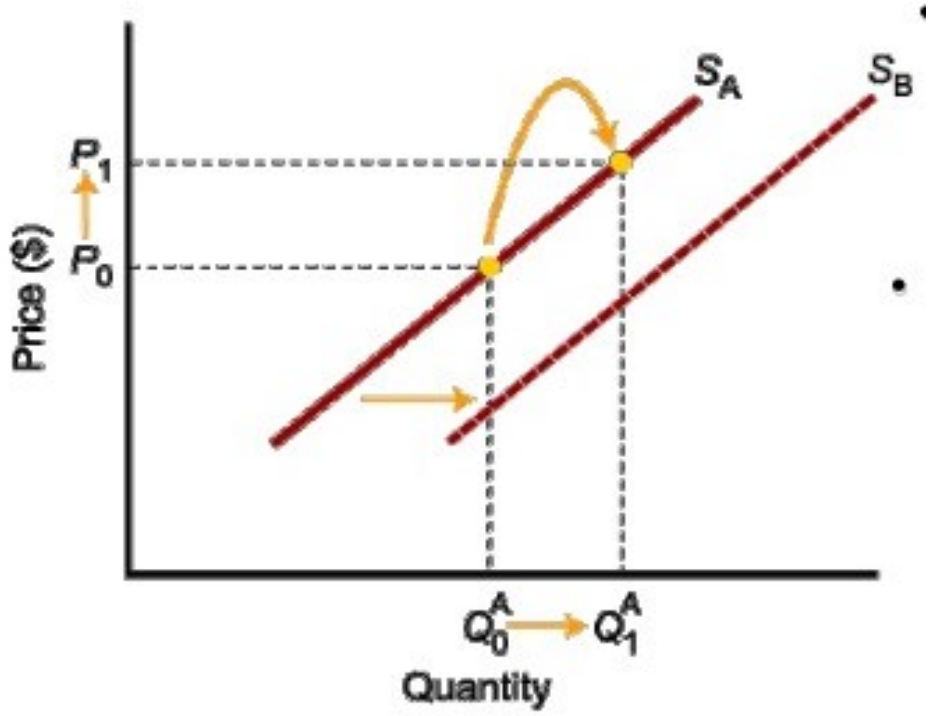
Change in Quantity Supplied or Expansion and Contraction of Supply: Along the Supply Curve increase in quantity supplied of a commodity due to rise in its price is called Expansion of Supply and decrease in quantity supplied due to fall in its price is called Contraction of Supply.

Shifts of Supply curve: Change in Supply or Increase and Decrease in Supply or Shift in Supply Curve Increase in Supply occurs when more is supplied at the existing price, while decrease in supply occurs when less is supplied at the existing price. While increase in supply cause a forward shift in supply curve, decrease in supply cause a backward shift in supply curve.

A higher price causes **higher quantity supplied and an extension of supply** with a **move along** the supply curve.

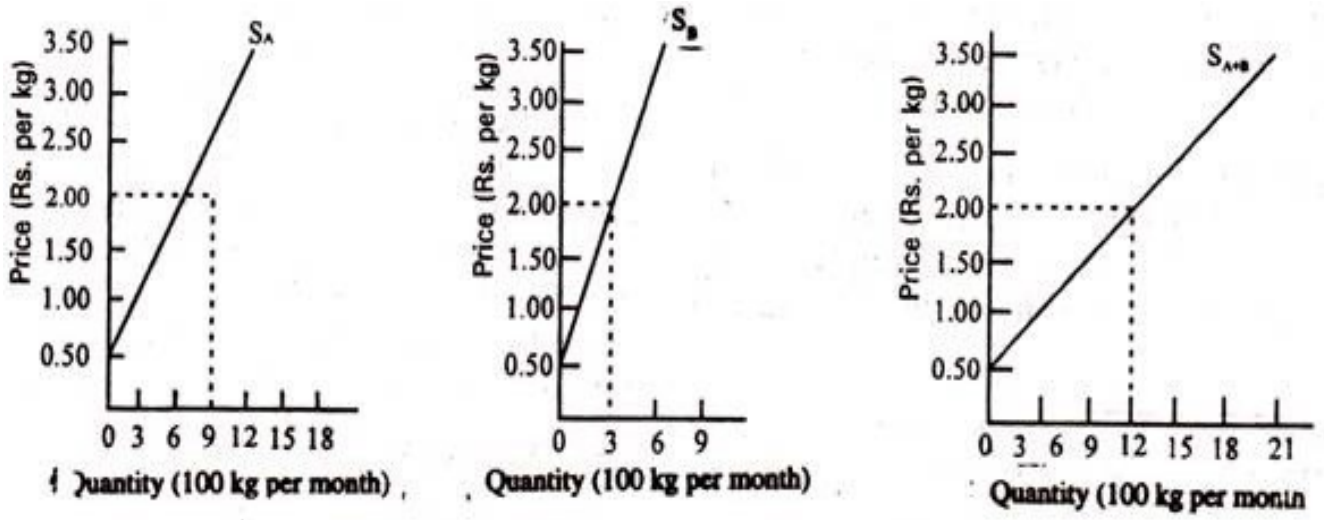
A change in determinants of supply other than price causes an **increase in supply** or a **shift** of the entire supply curve from $\mathbf{S_A}$ **to** $\mathbf{S_B}$

.



Market Supply

The market supply for a given commodity is the horizontal summation of the supply of the individual producers. In other words, the quantity supplied in the market at each price is the sum of the individual supply of all producers at that price.



Exceptions To The Law Of Supply

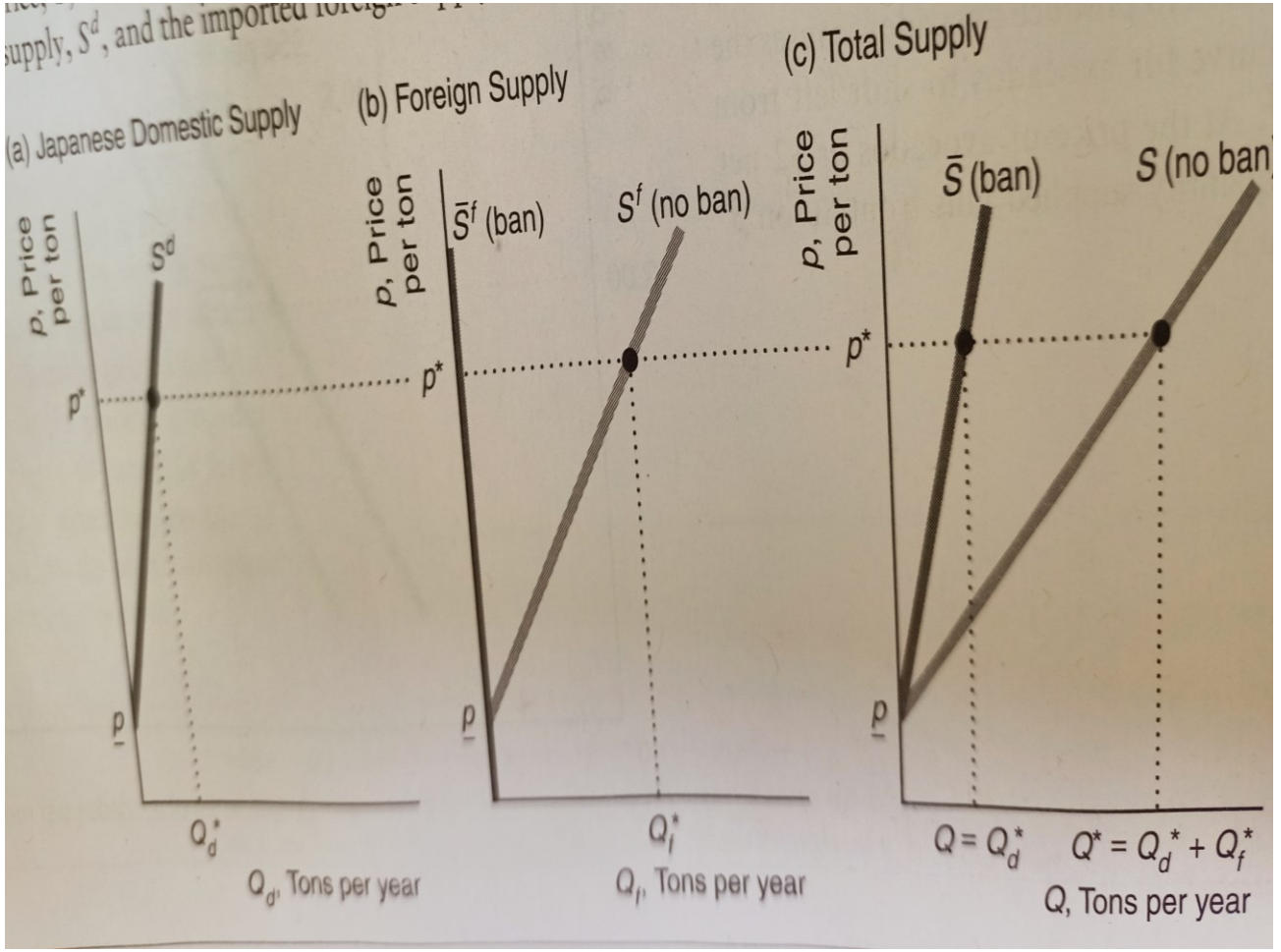
- Future Expectations: If sellers expect a fall in price in the future, then the law of supply may not hold true. In this situation, the sellers will be willing to sell more even at a lower price. However, if they expect the price to rise in the future, they would reduce the supply of the commodity, in order to supply the commodity later at a high price.
- Agricultural Goods: The law of supply does not apply to agricultural goods as their production depends on climatic conditions. If, due to unforeseen changes in weather, the production of agricultural products is low, then their supply cannot be increased even at higher prices.
- Perishable Goods: In case of perishable goods, like vegetables, fruits, etc., sellers will be ready to sell more even if the prices are falling. It happens because sellers cannot hold such goods for long.
- Rare Articles: Rare, artistic and precious articles are also outside the scope of law of supply. For example, supply of rare articles like painting of Mona Lisa cannot be increased, even if their prices are increased.
- Backward Countries: In economically backward countries, production and supply cannot be increased with rise in price due to shortage of resources.

Effect of government Import policies on supply curves: Import ban

Japan banned the importation of foreign rice until 1994 and even today severely restricts imports. We want to determine how much less was supplied at any given price to the Japanese market because of this ban.

From the figure of next slide, we can say without a ban, the foreign supply curve is S^f in panel b. A ban on imports eliminates the foreign supply, so the foreign supply curve after the ban is imposed, S^f is a vertical line at $Q_f = 0$. The import ban had no effect on the domestic supply curve, Sd, so the supply curve remains the same as in panel a.

Because the foreign supply with a ban, S^f , is zero at every price, the total supply with a ban, S , in panel c is the same as the Japanese domestic supply, S^d, , at any given price. The total supply curve under a ban lies to the left of the total supply curve without a ban, S. Thus, the effect of the import ban is to rotate the total supply curve toward the vertical axis.



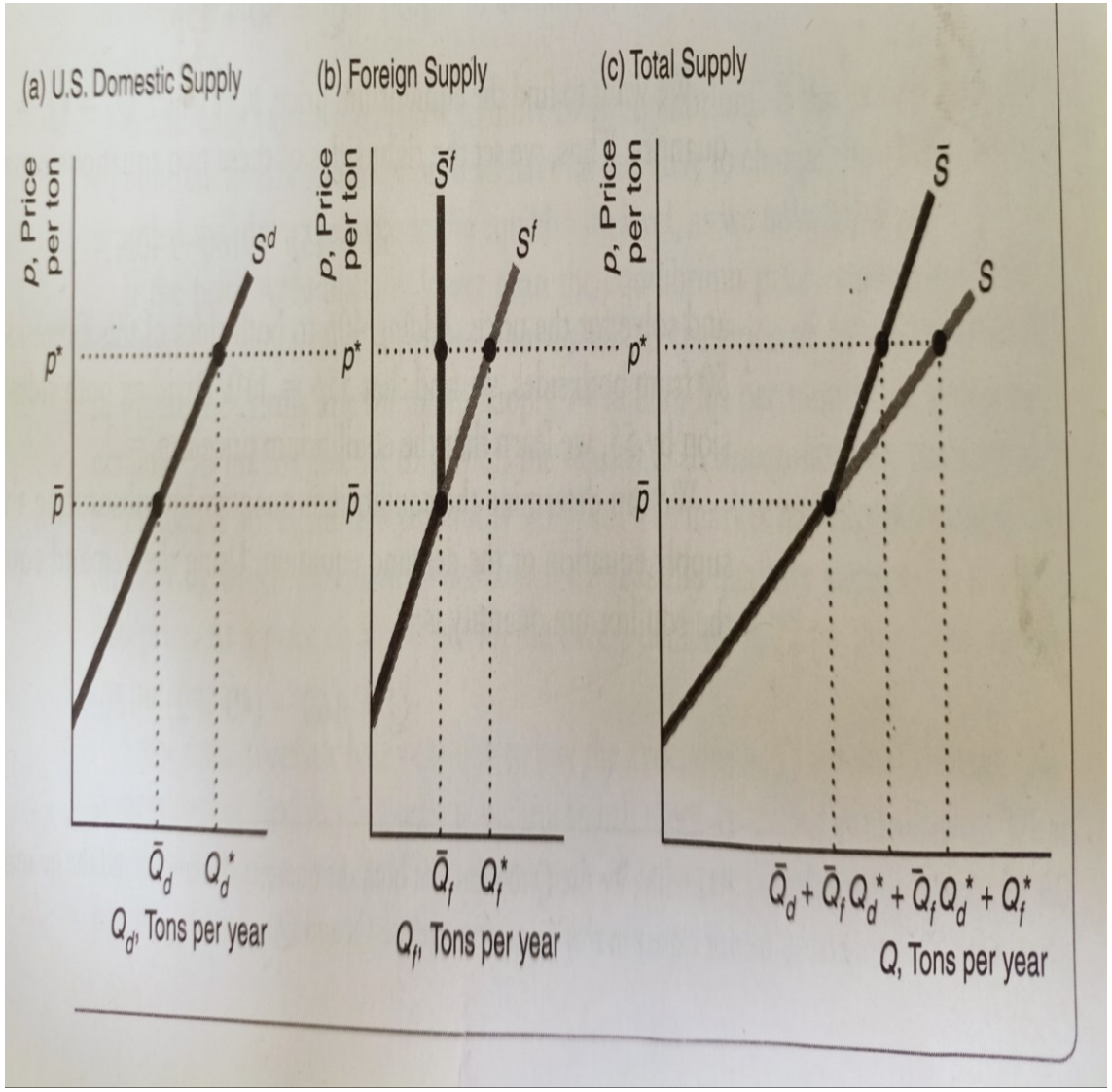
Effect of government Import policies on supply curves: Quota

Quota: The limit that a government sets on the quantity of a foreign-produced good that may be imported.

How does the quota set by the U.S. on foreign sugar imports of $\bar{Q}$ affect the total American supply curve for sugar given the domestic supply curve, S_d in panel a of the graph, and the foreign supply curve, S_f in panel b?

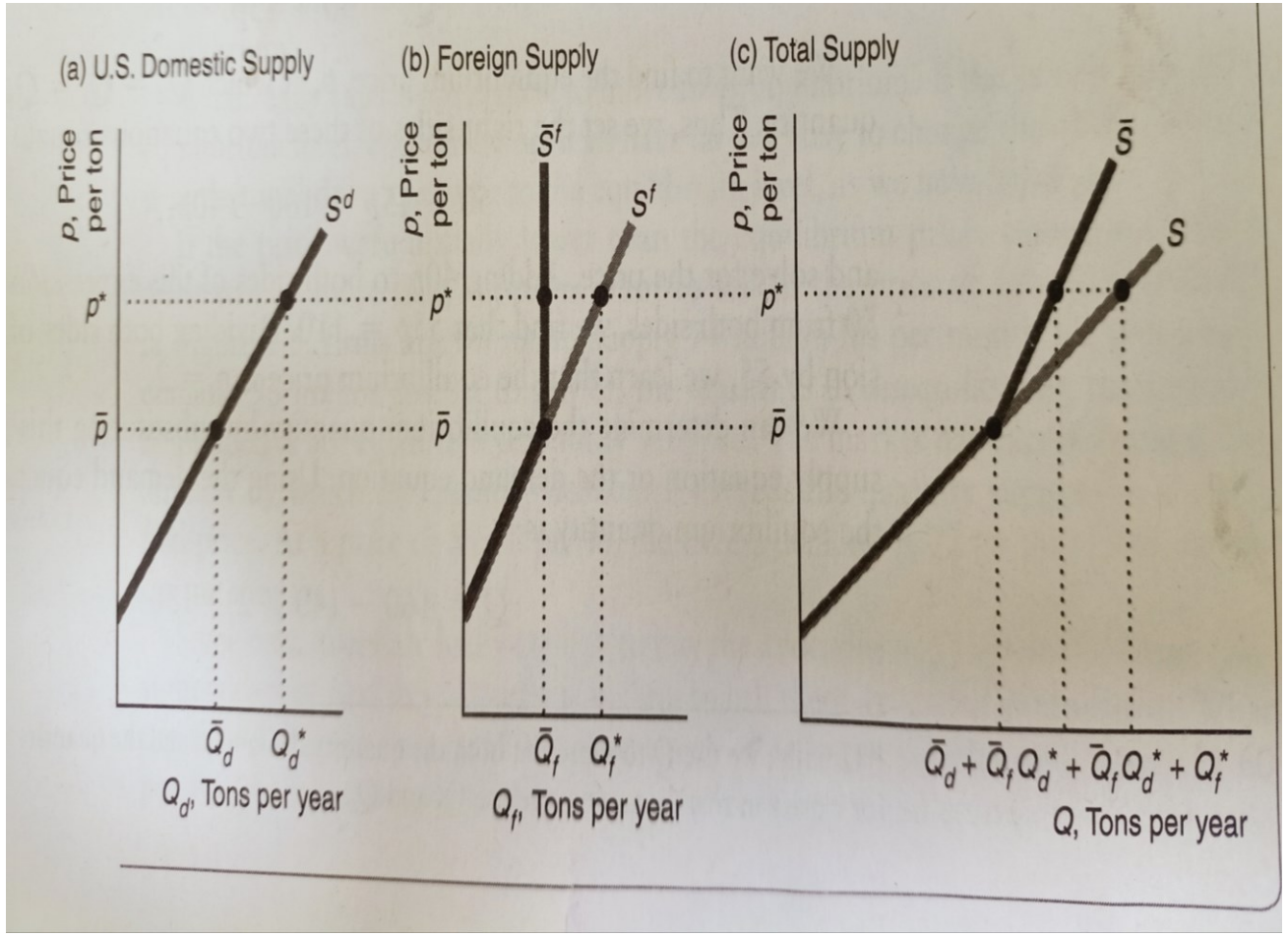
Determination of the American supply curve without the quota: The American supply curve of sugar without he quota is S in panel c which is the horizontal sum of the U.S. domestic supply curve S_d and the no-quota foreign supply curve, S_f.

Effect of the quota on foreign supply: At prices less than $\bar{p}$, foreign suppliers want to supply quantities less than quota, $\bar{Q}$. As a result, the foreign supply curve under the quota, $\overline{S_f}$, is the same as the no-quota foreign supply curve, Sf for prices less than $\bar{p}$. At prices above $\bar{p}$, foreign suppliers want to supply more but are limited to $\bar{Q}$. Thus the foreign supply curve with a quota, $\overline{S_f}$ is vertical at $\bar{Q}$ for prices above $\bar{p}$.



Determination of American total supply curve with the quota: The total supply curve with the quota, $\bar{S}$ is the horizontal sum of S_d and $\overline{S_f}$. At any price above $\bar{p}$, the total supply equals the quota plus the domestic supply. For example, at p*, the domestic supply is Qd* and the foreign supply is $\overline{Q_f}$ so that the total supply is Qd* + $\overline{Q_f}$,. Above $\bar{p}$, $\bar{S}$ is the domestic supply curve shifted $\bar{Q}$ units to the right. As a result, the portion of $\bar{S}$ above $\bar{p}$ has the same slope as S_d.

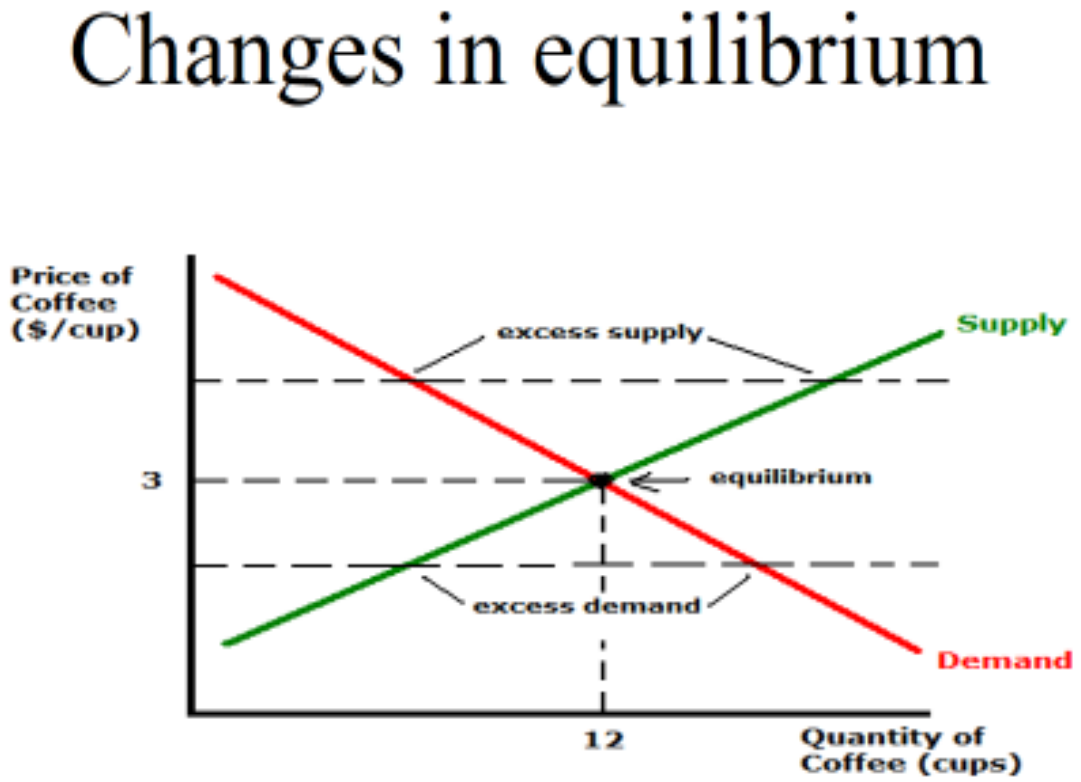
Compare the American total supply curves with and without the quota: At prices less than or equal to $\bar{p}$, the same quantity is supplied with or without the quota, so $\bar{S}$ is the same as S. At prices above $\bar{p}$, less is supplied with the quota than without quota, so $\bar{S}$ is steeper than S, indicating that a given increase in price raises the quantity supplied by less with a quota than without one.



MARKET EQUILIBRIUM

Equilibrium due to change in quantity demanded and quantity supplied

Equilibrium is the state in which market supply and demand balance each other, and as a result prices become stable. Generally, an over-supply of goods or services causes prices to go down, which results in higher demand—while an under-supply or shortage causes prices to go up resulting in less demand. The balancing effect of supply and demand results in a state of equilibrium.



- Market equilibrium is a situation when all traders are able to buy and sell as much as they want, a situation in which no one wants to change his or her behavior, i.e. quantity demanded equals to quantity supplied. A price at which consumers can buy as much as they want and sellers can sell as much as they want is called an *equilibrium price*. The quantity that is bought and sold at the equilibrium price is the *equilibrium quantity.*

- $Q_d = 160 - 40p \text{ ---} -(1)$

The above equation is of demand curve showing the relationship between the quantity demanded Qd and the price.

- $Q_s = 50 + 15p \text{ ----} -(2)$

Equation 2 is of supply curve showing the relationship between quantity supplied Qs and the price p.

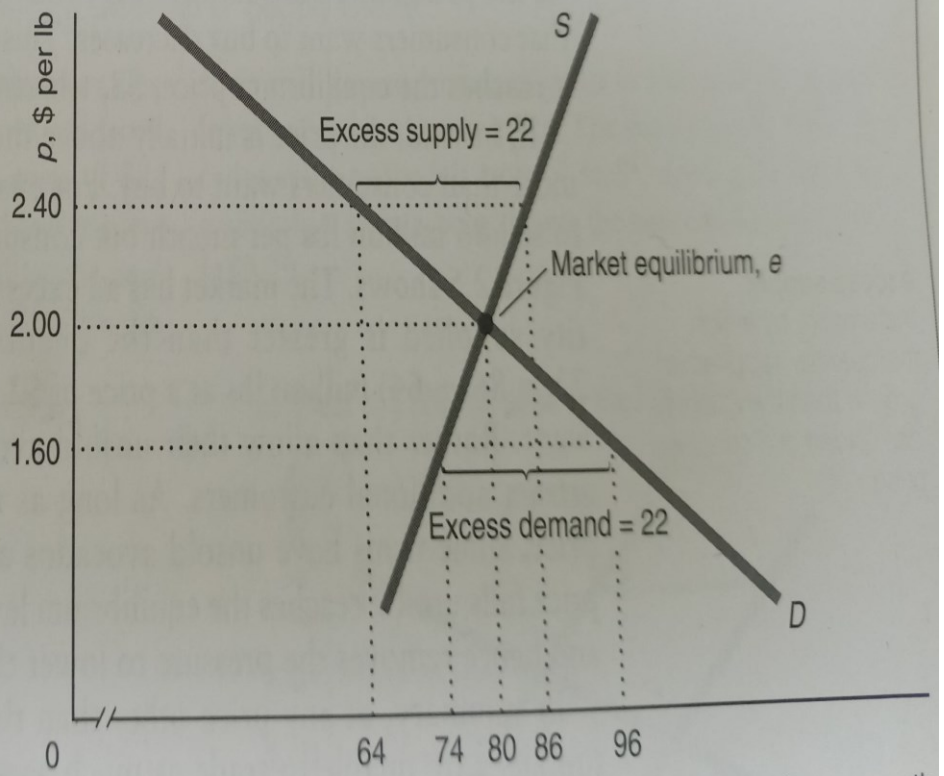
Solving both the equations , we get Q (equilibrium quantity)=80 and P* (equilibrium price)=2*

Forces that drive the market to the equilibrium

1. **Excess Demand**
2. **Excess Supply**

Figure 2.6 Market Equilibrium

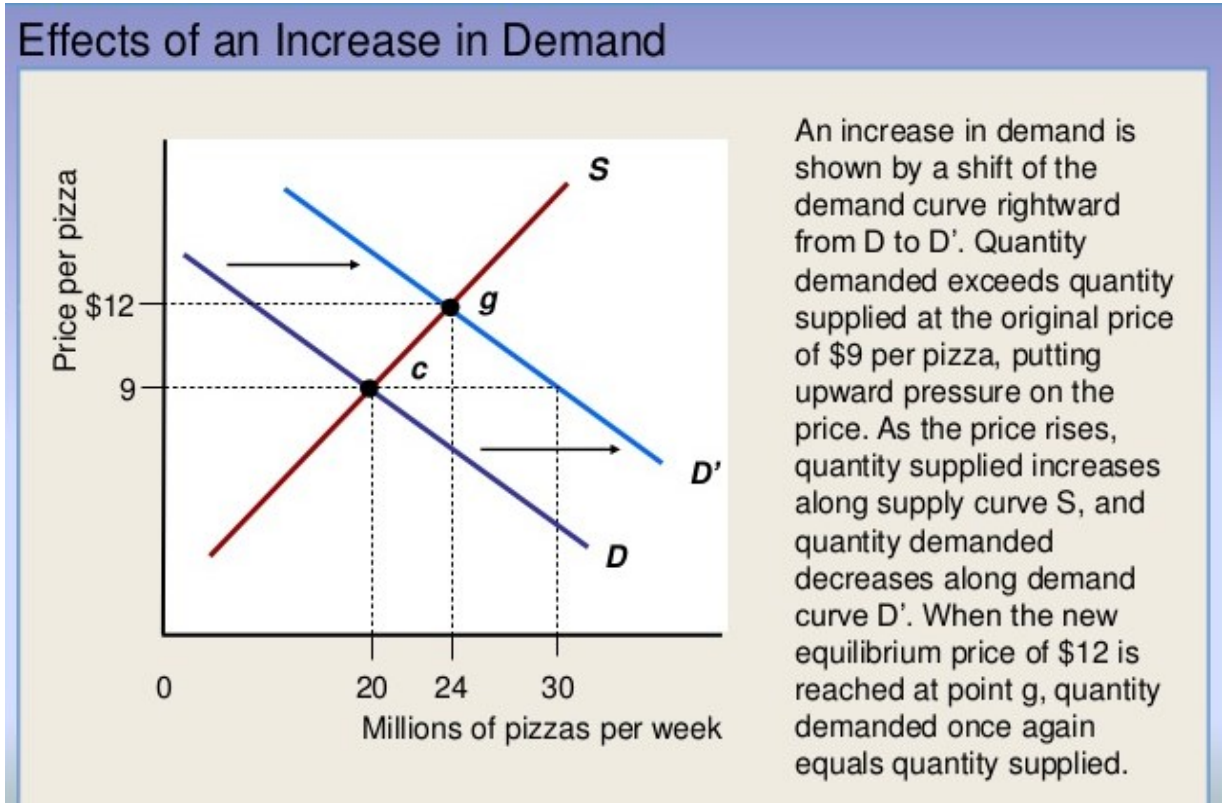
The intersection of the supply curve, S, and the demand curve, D, for avocados determines the market equilibrium point, e, where $p = \$2$ per lb and $Q = 80$ million lbs per month. At the lower price of $p = \$1.60$, the quantity supplied, 74, is less than the quantity demanded, 96, which results in excess demand of 22. At $p = \$2.40$, a price higher than the equilibrium price, the excess supply is 22 because the quantity demanded, 64, is less than the quantity supplied, 86. With either excess demand or excess supply, market forces drive the price back to the equilibrium price of $2.



Shocking the equilibrium

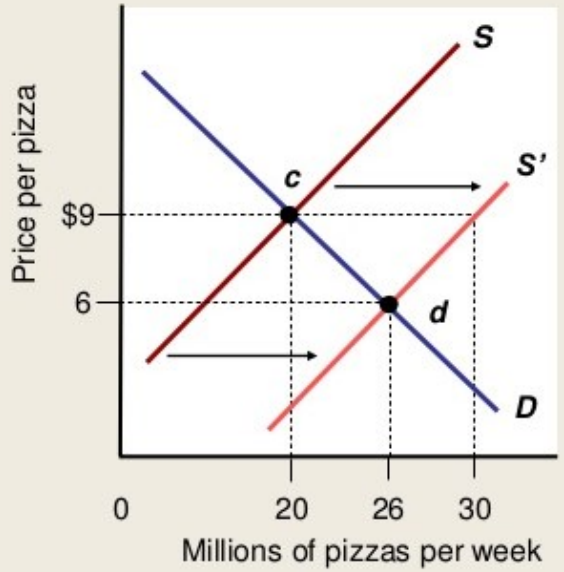
1. Effect of a shift in demand curve
2. Effect of a shift in supply curve

Equilibrium: Increase in Demand (Increase in income or increase in the price of related goods)



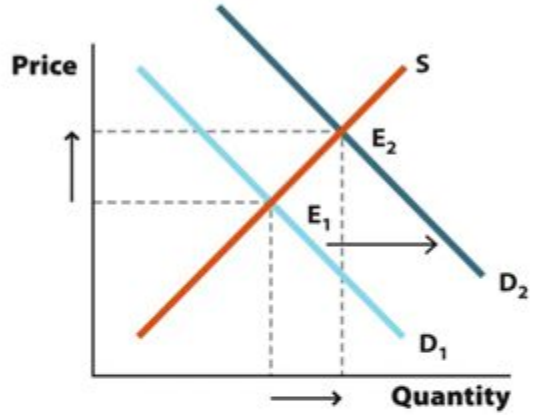
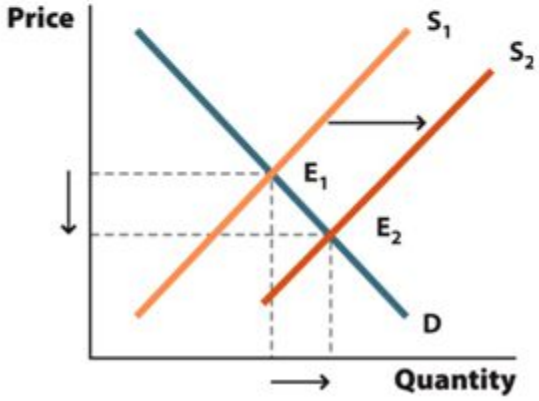
Equilibrium: Increase in Supply

Effects of an Increase in Supply



An increase in supply is shown by a shift of the supply curve rightward, from S to S'. Quantity supplied exceeds quantity demanded at the original price of $9 per pizza, putting downward pressure on the price. As the price falls, quantity supplied decreases along supply curve S', and quantity demanded increases along demand curve D. When the new equilibrium price of $6 is reached at point d, quantity demanded once again equals quantity supplied

Summary of Market Equilibrium

Change	Illustration	Impact on Price and Quantity
Demand increases		The demand curve shifts to the right. As a result, the equilibrium price and equilibrium quantity increase.
Supply increases		The supply curve shifts to the right. As a result, the equilibrium price declines and the equilibrium quantity increases.

When to use the supply and demand model?

The supply and demand model is a powerful tool to explain what happens in a market or to make predictions about what will happen if an underlying factor in a market changes. This model, however, is applicable only in markets with many buyers and sellers, identical goods, certainty and full price about price, quantity, quality, incomes, costs, other market characteristics, and low transaction costs.