The Price Puzzle: What Drives the Market

WHY PRICE CHANGES :

Prices change every day in markets around us. The price of tomatoes can rise after heavy rain damages crops. The price of umbrellas can increase during the monsoon season. A cinema ticket can cost more on weekends than on weekdays. These changes are not random. In most cases, prices change because of the way buyers and sellers respond to market conditions.

Economics explains these changes using two simple ideas: demand and supply. Demand describes what buyers want and can afford. Supply describes what sellers are willing and able to provide. When demand and supply meet, they help decide what the price will be and how much of a good or service will be bought and sold.

Prices as signals in markets :

A price is more than a number on a label. It acts like a signal that carries information to both buyers and sellers.

For buyers, price signals how costly something is.

If the price of a product rises, many people will think carefully before buying it. They may buy less, delay the purchase, or choose an alternative. If the price falls, more people may feel that the product is affordable and worth buying.

For sellers, price signals how profitable it might be to sell more.

If the price of a product rises, producers may try to supply more because the higher price can cover costs and bring more profit. If the price falls, producers may reduce supply because selling becomes less attractive.

Because of these signals, prices help coordinate decisions without any single person controlling the whole market. This is especially clear in markets with many buyers and many sellers, such as fruit markets, clothing shops, or mobile phone services.

However, prices also change when conditions change. Some common reasons include:

Changes in costs of production: If fuel prices rise, transportation becomes more expensive, and the supply of many goods can become costlier.

Changes in incomes: If people earn more, they may buy more goods and services, which can increase demand.

Changes in tastes and preferences: A new fashion trend can increase demand for certain clothes.

Changes in expectations: If people expect prices to rise in the future, they may buy more now, increasing demand today.

Changes in the number of buyers or sellers: If more sellers enter a market, supply can increase. If more buyers want the product, demand can increase.

Prices, therefore, are closely connected to how markets respond to changing conditions.

DEMAND :

Demand explains the buying side of a market. It focuses on consumers and answers a simple question: how much of a good or service will people buy at different prices?

In our everyday life, we can see demand in your own choices. If the price of a snack rises, you might buy it less often. If the price of a bus ticket falls, you might travel more. Economists study these patterns and describe them using the Law of Demand, demand schedules, and demand curves.

The Law of Demand :

The Law of Demand states that, other things remaining the same, when the price of a good rises, the quantity demanded falls, and when the price of a good falls, the quantity demanded rises.

This happens for two main reasons:

1. **The substitution effect:** When the price of one product rises, people often switch to a similar product that is cheaper. For example if the price of butter rises, some families may buy more margarine instead.
2. **The income effect:** When a product becomes more expensive, people feel as if their money buys less. Their purchasing power falls, so they reduce buying. For example if the price of cooking oil rises, a household may use it more carefully and buy less than before.

   The Law of Demand helps us predict how buyers respond to price changes. However, it does not say that buyers always stop buying when prices rise. It says that they usually buy less than before.

   The Law of Demand matches many real life experiences:

   If the price of ice cream rises on a hot day, some people may buy fewer ice creams or choose a cheaper snack.

   If the price of a bus ticket falls because of a discount, more people may choose to travel by bus.

   If the price of a popular video game falls after a few months, more players may buy it.

The Demand Curve and Quantity Demanded :

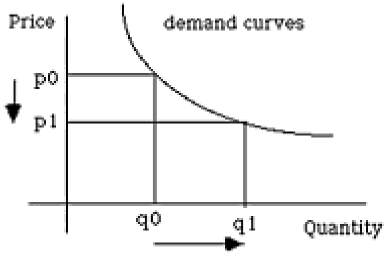
A demand curve is a graph that shows the relationship between price and quantity demanded. It is usually drawn with price on the vertical axis and quantity on the horizontal axis. For most goods, the demand curve slopes downward from left to right. This shape shows the Law of Demand: higher prices are linked with lower quantities demanded.

It is important to understand the idea of quantity demanded. Quantity demanded means the exact amount consumers want to buy at a particular price, during a particular time period.

A key point is the difference between:

A change in quantity demanded: this happens when the price of the good changes, and consumers move along the same demand curve.

A change in demand: this happens when something other than the price changes, and the whole demand curve shifts.



For example:

If the price of tea falls, and people buy more tea, that is a change in quantity demanded.

If people start preferring tea more than coffee, even at the same prices, that is a change in demand.

Shifts in Demand :

Demand can change even when the price of the good stays the same. When this happens, the demand curve shifts.

If demand increases, the demand curve shifts to the right. At same price, consumers want to buy more than before.

If demand decreases, the demand curve shifts to the left. At same price, consumers want to buy less than before.

Common causes of changes in demand include:

1. **Income :**
   When income rises, demand for many goods rises because people can afford more.
   When income falls, demand often falls because people reduce spending.
2. **Tastes and preferences :**
   If more students begin to prefer fruit juice instead of fizzy drinks, demand for fruit juice rises and demand for fizzy drinks may fall.
3. **Prices of related goods :**
   Substitutes: goods that can replace each other, such as tea and coffee. If coffee becomes more expensive, demand for tea may rise.
   Complements: goods that are often used together, such as smartphones and mobile data. If smartphone prices fall and more people buy smartphones, demand for mobile data may rise.
4. **Population and number of buyers :**
   If a town's population increases, demand for many goods like bread, transport, and housing can rise.

5. Expectations about the future :

If people expect prices to rise soon, they may buy more now, increasing demand today.

If people expect prices to fall soon, they may wait, decreasing demand today.

KEY LEARNINGS

- Demand means willingness and ability to buy a good at different prices over time.
- The Law of Demand says quantity demanded usually falls when price rises, and rises when price falls.
- A change in price causes movement along the demand curve, changing quantity demanded.
- Factors like income, tastes, related goods, and expectations can shift demand.
- When demand shifts, buyers want more or less at every price than before.

SUPPLY :

Supply explains the selling side of a market. It focuses on producers and answers a simple question: how much of a good or service will sellers offer for sale at different prices? In everyday life, we can see supply in action. If the price of a product rises, sellers may try to produce and sell more of it. Economists study these patterns and describe them using the Law of Supply, supply schedules, and supply curves.

The Law of Supply :

The Law of Supply states that, in general, when the price of a good rises, the quantity supplied rises, and when the price of a good falls, the quantity supplied falls, assuming other factors do not change.

This happens because a higher price often makes production and selling more profitable. Producers respond to this stronger reward by supplying more.

The Law of Supply matches many real-life experiences:

If the market price of tomatoes rises, farmers may try to bring more tomatoes to market, and some farmers may plant more tomatoes in the next season.

If the price of handmade crafts rises at a local fair, craft sellers may produce more items to sell.

If the price of tutoring services rises, more people may offer tutoring because it becomes a better way to earn income.

The Law of Supply does not mean that producers can always increase supply immediately. Some goods take time to produce. Farmers cannot grow extra wheat overnight, and factories cannot instantly build a new production line. In the short run, supply may be limited by time, resources, and capacity. Over a longer period, producers can often adjust more.

The Supply Curve and quantity Supplied :

A supply curve is a graph that shows the relationship between price and quantity supplied. It is usually drawn with price on the vertical axis and quantity on the horizontal axis. For most goods, the supply curve slopes upward from left to right. This shape shows the Law of Supply: higher prices are linked with higher quantities supplied.

It is important to understand quantity supplied.

Quantity supplied means the exact amount producers want to sell at a particular price, during a particular time period.

A key point is the difference between:

A change in quantity supplied: This happens when the price of the good changes, and producers move along the same supply curve.

A change in supply: This happens when something other than the price changes, and the whole supply curve shifts.

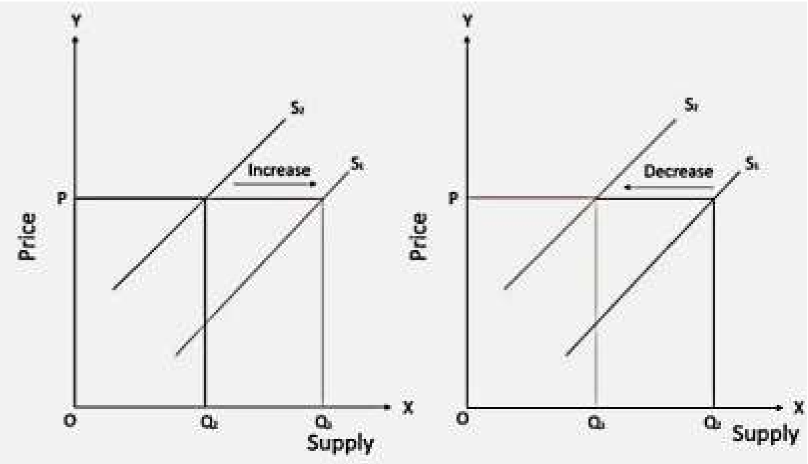


Figure 1 : Rightward Shift Figure 2 : Leftward Shift

For example:

If the price of bread rises and bakeries decide to bake more loaves, that is a change in quantity supplied.

If the cost of flour rises and bakeries produce fewer loaves at every price, that is a change in supply.

Shifts in Supply :

Supply can change even when the price of the good stays the same. When this happens, the supply curve shifts.

If supply increases, the supply curve shifts to the right. At same price, producers supply more than before.

If supply decreases, the supply curve shifts to the left. At same price, producers supply less than before.

Common causes of changes in supply include:

1. Costs of production :

Costs include wages, raw materials, electricity, transport, and rent.

If production costs rise, supply may fall because it becomes harder to make profit.

If production costs fall, supply may rise because production becomes cheaper

2. Technology :

Better technology can make production faster or cheaper.

A new machine that packs biscuits more quickly can increase supply.

3. Number of sellers :

If more firms enter the market, supply usually increases.

If firms leave the market, supply decreases.

4. Natural factors and weather :

Weather is especially important for agriculture.

A drought can reduce the supply of crops, shifting supply left.

A good monsoon can increase crop supply, shifting supply right.

5. Government policies

Taxes and subsidies affect costs.

A tax on sugary drinks increases costs and can reduce supply.

A subsidy for solar panels reduces costs and can increase supply.

6. Expectations about the future

Producers also react to what they expect.

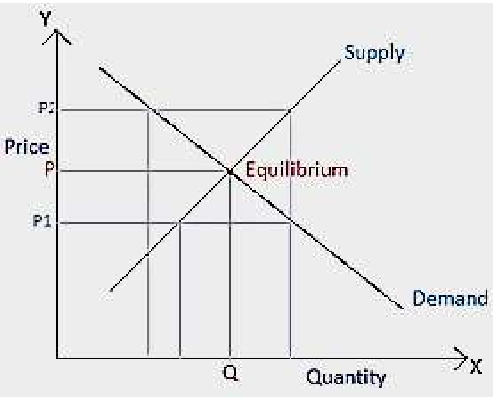
If sellers expect prices to rise in the near future, they might hold back stock now, reducing supply today.

If they expect prices to fall, they may sell more quickly, increasing supply today.

KEY LEARNINGS

- Supply means willingness and ability of sellers to offer goods at different prices over time.
- The Law of Supply says quantity supplied usually rises when price rises, and falls when price falls.
- A change in price causes movement along the supply curve, changing quantity supplied.
- Costs, technology, number of sellers, weather, and policy can shift supply.
- Expectations can change supply today if sellers hold back or release stock.

MARKET EQUILIBRIUM :



Markets bring together buyers and sellers. The market price and the amount bought and sold are decided by the interaction of demand and supply. When economists talk about equilibrium, they mean a balance point where the plans of buyers and sellers match.

Equilibrium Price and Equilibrium Quantity :

The equilibrium price is the price at which the quantity demanded equals the quantity supplied. The equilibrium quantity is the amount bought and sold at that price.

On a graph, equilibrium is found at the point where the demand curve and the supply curve intersect. This intersection is important because it shows the market outcome when buyers and sellers are free to respond to prices.

A simple example is a market for notebooks?

At a high price, fewer students want to buy notebooks, but shops are willing to supply many.

At a low price, many students want to buy notebooks, but shops are willing to supply fewer.

At one particular price, the number of notebooks

students want to buy matches the number shops want to sell. That is equilibrium.

Equilibrium does not mean that everyone is perfectly satisfied. Some buyers may still think the price is high, and some sellers may still wish the price was higher. It simply means the market clears, so there is no pressure for the price to rise or fall, Surplus and Shortage

When the market price is not at equilibrium, markets create either surplus or shortage.

Surplus happens when the price is above equilibrium and quantity supplied is greater than quantity demanded. It means sellers have more goods than buyers are willing to buy at that price. For example, a shop sets the price of winter jackets very high at the start of spring. Few people want to buy, but the shop has a large stock. Jackets remain unsold, creating a surplus.

Shortage happens when the price is below equilibrium and quantity demanded is greater than quantity supplied. It means, buyers want more than sellers are willing to provide at that price. For example, if a canteen sells a popular snack at a very low price, many students may want it, but the canteen may not be able to supply enough. The snack sells out quickly, creating a shortage.

Surplus and shortage create pressure for prices to change:

A surplus pushes prices downward because sellers want to sell what they have.

A shortage pushes prices upward because buyers compete to get limited supply.

Changes in Equilibrium :

Equilibrium can change when demand or supply changes. This is one of the most important reasons why prices change in real life.

When demand increases: At the original price, more buyers want the good than before, which can cause a shortage. This shortage puts upward pressure on price. The new equilibrium usually has:

a higher equilibrium price

a higher equilibrium quantity

For example, a famous sportsperson is seen wearing a particular brand of shoes. Many people begin to want those shoes. Demand increases, prices may rise, and more shoes may be produced and sold.

When demand decreases: At the original price, fewer buyers want the good, which can create a surplus. Sellers may lower prices. The new equilibrium usually has:

a lower equilibrium price

a lower equilibrium quantity

For example, if a new type of earphone becomes popular, demand for an older model may fall, leading to price cuts and reduced production.

When supply increases: At the original price, sellers offer more than before, which can create a surplus. Prices tend to fall. The new equilibrium usually has:

a lower equilibrium price

a higher equilibrium quantity

For example, a good harvest increases the supply of vegetables. With more vegetables available, prices fall and people buy more.

When supply decreases: At the original price, sellers provide less than before, which can cause a shortage. Prices tend to rise. The new equilibrium usually has:

a higher equilibrium price

a lower equilibrium quantity

For example, if a disease harms poultry farms, the supply of eggs may fall. Egg prices can rise and fewer eggs may be sold.

WHEN MARKETS DO NOT FOLLOW SIMPLE THEORY :

The laws of demand and supply are very useful, but real life markets can behave differently from the simplest textbook picture. Sometimes buyers do not reduce buying much when prices rise. Sometimes sellers cannot respond quickly to higher prices. Sometimes a good has special features that change how people react.

Necessities and Luxuries :

Not all goods are equally easy to reduce or increase in daily life. The response of buyers depends on how essential the good is. Necessities are goods that people feel they must have to maintain basic living standards, such as staple foods, basic medicines, or essential transport. When the price of a necessity rises, people may not be able to reduce consumption much, because there is no easy replacement.

For example, if the price of a basic medicine rises, patients may still buy it because it is needed for health. In such cases, demand still follows the Law of Demand, but the fall in quantity demanded may be small.

Luxury goods are goods that people can live without, such as expensive branded clothing, high end electronics, or costly restaurant meals. When the price of a luxury rises, buyers can often reduce buying more easily. Luxury goods often have more substitute choices. This makes demand more responsive to price changes compared to necessities.

For example, if the price of an expensive designer bag rises, many buyers may decide not to buy it or may choose a different brand.

Perishable Goods :

Some goods spoil quickly, such as fresh fish, milk, vegetables, or baked items. These are called perishable goods. Perishability creates time pressure for sellers, and this can cause unusual price behaviour.

If a seller has perishable goods that must be sold today, the seller may reduce prices near the end of the day to avoid waste. For example, a fruit seller may lower the price of bananas in the evening to sell them before they become overripe.

Perishability can also affect buyers. If buyers know that prices usually fall later, they might wait, which can reduce demand earlier in the day and increase demand later. This can create price changes within a short time period.

Expectations :

People often make buying and selling decisions based on what they expect will happen in the future. Expectations can change demand and supply.

Expectations affecting demand: If consumers expect prices to rise soon, they may buy more now, which can increase demand. For example, if people hear that the price of cooking gas may rise next month, they may refill sooner, increasing demand.

If consumers expect prices to fall soon, they may delay purchases, which can decrease demand. For example, if a buyer expects a phone model to become cheaper during a sale, they may wait, reducing current demand.

Expectations affecting supply; Sellers also respond to expectations. If sellers expect prices to rise soon, they may hold back goods, which can reduce supply. For example, a trader may store onions if a price rise is expected, so fewer onions reach the market.

If sellers expect prices to fall, they may sell more quickly, which can increase supply. For example, a shop may clear its stock of old shoes before a new model arrives, increasing supply at current prices.

PRICE CONTROLS :

Sometimes governments intervene in markets instead of allowing prices to adjust freely. One common intervention is a price ceiling. Price ceilings are usually used when a good is considered essential and the government wants it to be affordable for more people. However, if a price ceiling is set too low, it can create problems such as shortages and black markets.

What is a Price Ceiling?

A price ceiling is a legal maximum price that sellers are not allowed to charge for a good or service. The main aim is to protect consumers from high prices.

Price ceilings may be used for goods such as:

- basic food items
- medicines
- public transport fares
- rent in housing markets

A price ceiling only has a strong effect if it is set below the equilibrium price. If the equilibrium price of a product is ₹50 and the government sets a price ceiling of 255, the ceiling does not change the market because sellers were not charging above ₹55 anyway. But if the government sets a ceiling of ₹40, it forces the price below the market equilibrium.

When a price ceiling is below equilibrium:

the price becomes lower than what the market would naturally set

consumers want to buy more at the lower price

producers may supply less because the price is less attractive

This situation often leads to a shortage.

Shortages in Market :

When the price ceiling is below equilibrium, quantity demanded becomes greater than quantity supplied. This creates a shortage.

Suppose the market price of cooking oil would normally be ₹ 200 per litre, but a price ceiling sets the maximum price at ₹150. At ₹150:

- more families want to buy cooking oil because it is cheaper
- some producers and sellers may reduce supply because profit per unit is lower
- the result is not enough cooking oil for everyone who wants it

When shortages appear, price is no longer doing its normal job of balancing demand and supply. Instead, other methods may decide who gets the good.

Common results of shortages include:

Queues and waiting time: People may have to stand in long lines to buy the product. Time becomes the cost instead of money.

Rationing: Shops or authorities may limit how much each person can buy, such as one packet per customer or a fixed amount per household. Rationing can prevent a few people from buying everything, but it can also be difficult to organise fairly.

Falling quality or reduced service: Sellers might respond by reducing quality instead of increasing the price. For example, landlords under strict rent ceilings may spend less on maintenance because they cannot charge higher rent.

In each case, the price ceiling changes the market outcome. Even though the product is cheaper, it may be harder to find.

Black Markets :

A black market is an illegal market where goods are bought and sold at prices higher than the legal price. Black markets often appear when a price ceiling creates a shortage.

Why can this happen?

- Some buyers are willing to pay more than the legal price to avoid queues or to ensure they get the product.
- Some sellers want to earn higher profit than the ceiling allows.
- Because the good is scarce, some people may buy extra and resell it illegally at higher prices.

For example, if a price ceiling keeps the price of a ticket low but tickets are limited, some people might buy tickets and then sell them at a much higher price outside the legal system.

Price ceilings can also lead to other unintended outcomes:

Corruption: If goods are scarce, people might try to use connections or bribery to obtain them.

Hoarding: People may buy more than they need because they fear the good will not be available later. This makes shortages worse.

Misallocation: Goods might not reach the people who need them most, because the system cannot use price to guide distribution.

This does not mean that price ceilings are always useless. They can protect consumers in emergencies, but governments often need other policies alongside ceilings, such as increasing supply, improving distribution, or using well organised rationing.

KEY LEARNINGS

- A price ceiling is a legal maximum price set by the government.
- If set below equilibrium, it can create a shortage because demand exceeds supply.
- Shortages can lead to queues, rationing, and reduced quality or service.
- Black markets may develop where goods are sold illegally above the legal price.
- Price ceilings may need extra measures, such as better supply and fair distribution.

MARKET FAILURE :

In many markets, prices guide resources in a useful way. When demand rises, prices rise and firms supply more. When demand falls, prices fall and firms supply less. However, there are situations where markets do not produce the best outcomes for society. Economists call this problem market failure.

Market failure happens when the market price does not fully reflect the real costs and benefits of producing and consuming a good or service. As a result, too much or too little of something may be produced or consumed.

Externalities :

An externality is a side effect of production or consumption that affects people who are not directly involved in the market transaction. Externalities can be positive or negative.

Negative externalities arise when an economic activity imposes costs on third parties who are not directly involved in the transaction. A common example is pollution: a factory may produce goods and earn revenue, yet it may also emit smoke that harms the health of nearby residents. Because the factory and its customers do not bear the full social cost of this damage, the market price of the product can be artificially low. As a result, too many resources are allocated to producing the good, leading to overproduction relative to the socially efficient level.

Positive externalities occur when an economic activity generates benefits for others beyond those enjoyed by the buyer and seller. Vaccination highlights this clearly: an individual who is vaccinated gains personal protection, while other people also benefit because the disease is less likely to spread. However, since these wider benefits are not fully reflected in private decisions, the market may provide too little vaccination. Consequently, the quantity exchanged in the market can fall below the socially desirable level.

In both cases, the market outcome can differ from what is best for society because the price signal is incomplete.

A Pigouvian tax, named after 1920 British economist Arthur C. Pigou, is a tax on a market transaction that creates a negative externality, or an additional cost, borne by individuals not directly involved in the transaction. Examples include tobacco taxes, sugar taxes, and carbon taxes.

Information Asymmetry :

A market works better when buyers and sellers have good information. Information asymmetry happens when one side of the market has more or better information than the other.

This can cause unfair deals and poor decisions. For example, a shop might exaggerate the quality of a product, while customers cannot easily check the truth before buying.

Information asymmetry can lead to two key problems:

Low trust: Buyers may become suspicious and stop buying, even from honest sellers.

Bad quality driving out good quality: If buyers cannot tell quality apart, they may only be willing to pay an average price. Then sellers of high quality goods may leave the market because the price is not worth it.

Governments and organisations sometimes reduce information problems through rules such as labelling, safety standards, and consumer protection laws.

Public Goods :

A public good is a product or service that is both nonexcludable and non-rivalrous.

Non excludable means it is difficult or impossible to stop people from using the good, even if they have not paid for it. For example, a street lighting benefits anyone walking on the road at night. It is not easy to exclude only those who have paid.

Non rival means that one person using the good does not reduce the amount available for others. For example, one person walking through a public park does not stop others from walking there too.

Why Markets Under Provide Public Goods :

Private firms usually supply goods to earn profit. They need customers to pay, otherwise they cannot cover costs. Public goods create a problem because of non-excludability.

If people can use a good without paying, many may choose to avoid paying and still enjoy the benefit. This behavior is called free riding. For example, consider a neighborhood park a private company could build and maintain the park, but it would need money from users. Because the park is open, people may enter without paying. If many people do this, the company does not collect enough money to maintain the park.

As a result, private markets often provide too little of a public good, or none at all. Even if some people are willing to pay, they may think it is unfair to pay when others can use the same good for free.

This is why public goods are considered a market failure. The market does not fully match society's needs because the price system cannot work properly when payment cannot be enforced.

KEY LEARNINGS

- Market failure happens when market outcomes are not best for society.
- Externalities occur when third parties are affected by production or consumption.
- Information asymmetry arises when buyers and sellers have unequal information.
- Public goods are non excludable and non rival, so many can benefit at once.
- Private firms often under provide public goods due to difficulty collecting payment.