IIPA 2022

Chapter 2: Basics of Microeconomics

Short Answers

CSM 05: Economic and Social Development-Sustainable Development, Poverty, Inclusion

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This chapter contains:

- **Law of Demand and Supply**
- **Elasticity of Demand**
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- **Giffen Goods**
- **Veblen Goods**

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1. Law of Demand and Supply

The **law of demand and supply** is a theory that explains the interaction between resource sellers and buyers. The theory defines the relationship between the price of a given good or product and people's willingness to buy or sell it. In general, as prices rise, people are willing to supply more and demand less, and vice versa when prices fall.

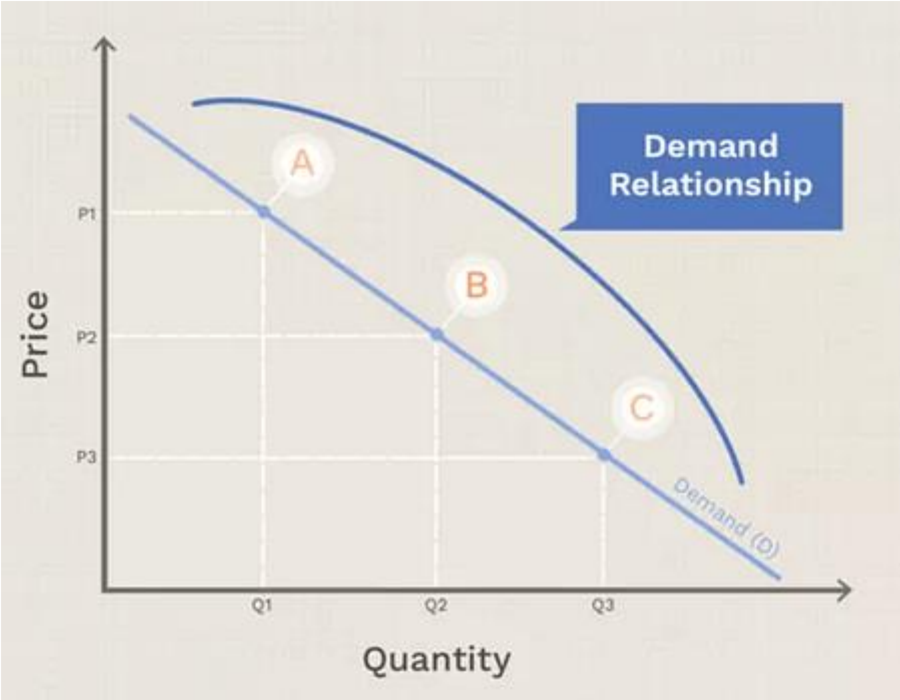
1.1 Concept

- According to the **law of demand**, as prices rise, buyers demand less of an economic good.
- According to the **law of supply**, at higher prices, sellers will supply more of an economic good.
- These two laws interact to determine the actual market prices and volume of goods traded on a market.
- Several independent factors can influence the shape of market supply and demand, influencing both the prices and quantities observed in markets.

1.2 Law of Demand

- According to the law of demand, if all other factors remain constant, the higher the price of a good, the fewer people will demand that good. In other words, as the price rises, so does the quantity demanded.
- Buyers purchase less of a good at a higher price because as the price of good rises, so does the opportunity cost of purchasing that good.
- As a result, people will naturally avoid purchasing a product that requires them to forego the consumption of something else that they value more.
- The graph below depicts the curve's downward slope.

A, B, and C are points on the demand curve. Each point (A, B, C) represents the quantity demanded (Q) at a given price (P). For example, at point A, the quantity demanded is low (Q1) and the price is high (P1). The demand relationship curve illustrates the negative relationship between price and quantity demanded. Consumers demand less quantity of goods at higher prices, and more at lower prices.

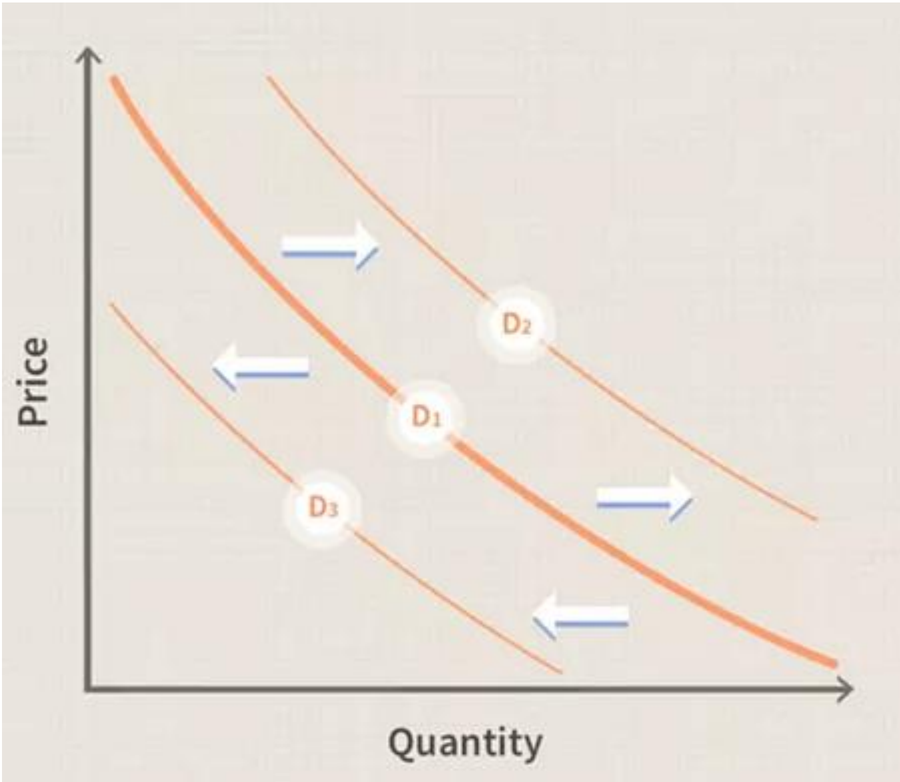


1.2.1 Demand Elasticity

Demand elasticity or **price elasticity of demand** refers to the degree to which rising prices translate into falling demand. For example,

- The demand elasticity of corn is one if a 50% increase in corn prices causes a 50% decrease in corn demand.
- The demand elasticity is 0.2 if a 50% increase in corn prices only reduces the quantity demanded by 10%.
- For products with more elastic demand, the demand curve is shallower (closer to horizontal), and for products with less elastic demand, the demand curve is steeper (closer to vertical).
- A new demand curve must be drawn if a factor other than price or quantity changes.
- Assume that the population of a region explodes, increasing the number of mouths to feed. In this scenario, even if the price remains constant, more corn will be demanded, causing the curve in the graph below to shift to the right (D2).
- Other factors, such as changes in consumer preferences, can also cause the demand curve to shift.
- If cultural shifts cause the market to prefer quinoa over corn, the demand curve will shift to the left (D3).
- If consumer income falls, reducing their ability to purchase corn, demand will shift to the left (D3).
- If the price of a substitute increases from the consumer's point of view, consumers will buy corn instead, and demand will shift right (D2).
- If the price of a supplement, such as charcoal for grilling corn, rises, demand will shift to the left (D3).

- If the future price of corn is higher than the current price, demand will temporarily shift to the right (D2), because consumers will be more inclined to buy now before the price rises.



1.2.2 Exceptions to Law of Demand

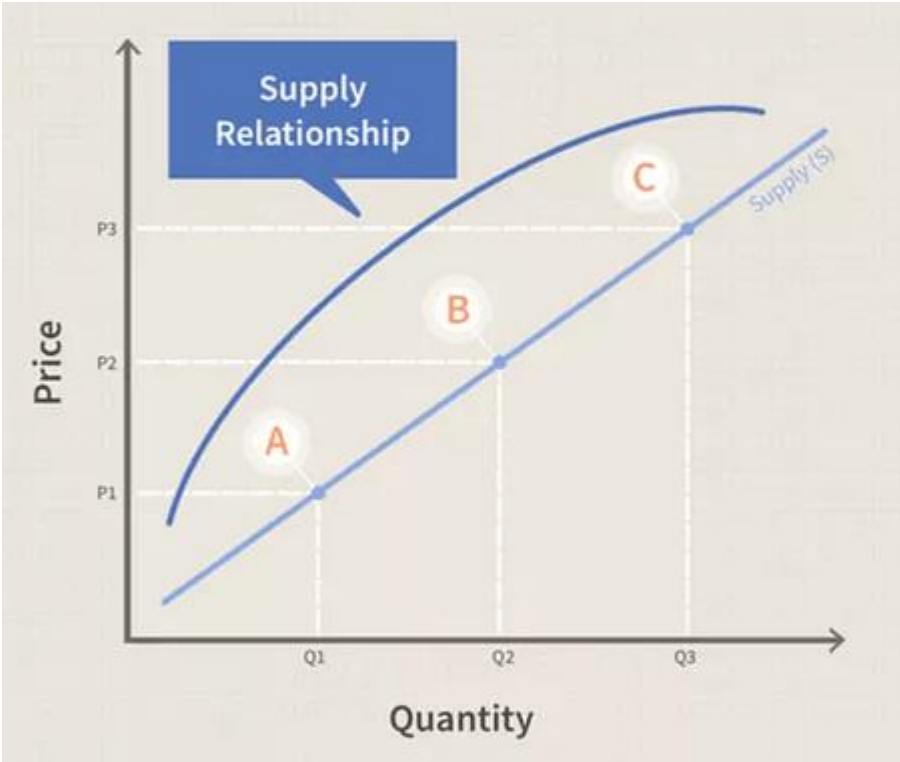
- There are some exceptions to the rules that govern the relationship between goods prices and demand. A **Giffen good** is one of these exceptions.
- This is a staple food, similar to bread or rice, for which there is no viable substitute.
- In short, when the price of a Giffen good rises, demand rises, and demand falls when the price falls.
- The demand for these goods is increasing, which contradicts demand laws.
- As a result, the typical response (rising prices causing a substitution effect) will not apply to Giffen goods, and the price increase will continue to push demand.

1.3 Law of Supply

- The law of supply is a microeconomic law that states that, all else being equal, as the price of a good or service rises, so will the quantity of goods or services offered by suppliers, and vice versa.
- According to the law of supply, as the price of an item rises, suppliers will try to maximise their profits by increasing the quantity offered for sale.
- In contrast to the law of demand, the supply relationship has an upward slope. This means that as the price rises, so will the quantity supplied.
- The supply curve slopes upward because suppliers can choose how much of their goods to produce and later sell.

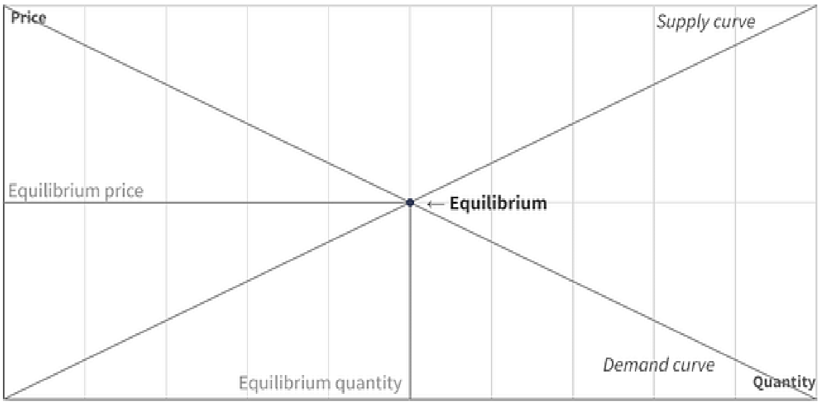
- However, at any given time, the supply that sellers bring to market is fixed, and sellers simply face the decision of selling or withholding their stock from a sale; consumer demand sets the price, and sellers can only charge what the market will bear.
- The chart below depicts the law of supply using an upward sloping supply curve.

A, B, and C are points on the supply curve. Every point on the curve represents a direct relationship between quantities supplied (Q) and price (P). So, at point A, the quantity supplied is Q1, and the price is P1, and so on.



1.3.1 Equilibrium

- The **equilibrium price**, also known as a **market-clearing price**, is the price at which the producer can sell all of the units he wants to produce and the buyer can buy all of the units he wants to buy.



- It is easy to see how an upward-sloping supply curve and a downward-sloping demand curve will intersect at some point.
- At this point, the market price is sufficient to entice suppliers to bring to market the same quantity of goods that consumers are willing to pay for at that price.
- Supply and demand are in equilibrium.
- The precise price and amount at which this occurs are determined by the shape and position of the respective supply and demand curves, both of which are influenced by a variety of factors.

Examples of Law of Supply

- When college students realise that computer engineering jobs pay more than English professor jobs, the supply of computer engineering majors will increase.
- When consumers begin to pay more for cupcakes than for donuts, bakeries will increase their cupcake output while decreasing their donut output in order to increase their profits.
- When your employer pays time and a half for overtime, you increase the number of hours you are willing to work.

1.4 Significance

- The Law of Demand and Supply is critical because it assists investors, entrepreneurs, and economists in understanding and forecasting market conditions.
  - For example, a company launching a new product may purposefully attempt to raise the price of the product by increasing consumer demand through advertising.
  - At the same time, they may try to raise their prices even further by deliberately limiting the number of units they sell in order to reduce supply.
  - In this scenario, supply would be reduced while demand would be increased, resulting in a higher price.
- Together with the Law of Supply, the Law of Demand helps us understand why things are priced the way they are and to identify opportunities to buy perceived under-priced (or sell perceived overpriced) products, assets, or securities.
  - For example, a company may increase output in response to rising prices caused by a surge in demand.

1.5 Drawbacks

- Unemployment is caused by a lack of demand for goods.
- During the Great Depression, factories sat idle and workers were laid off because there was insufficient demand for those products.
- In the case of **Giffen goods,** when the price of a Giffen good rises, demand rises, and demand falls when the price falls. For example, staple food, similar to bread or rice, for which there is no viable substitute.
- The demand for these goods is increasing, which contradicts demand laws.

- **Prestigious Goods:** Demand for goods of prestige like gold, demand may not decrease even if there is rise in price. They are purchased and consumed because of their high prices.
- **Hobbies:** The law of demand is not applicable in the case of goods of hobbies like ticket collection, and collection of historical and archaeological materials. The things are collected even by paying more and more price.
- **Addiction:** In case of goods and addiction like alcohol, tobacco, drugs etc the demand does not decrease even if there is an increase in price. Instead of the operation of law of demand consumers purchase more units even if there is a rise in price.
- **Future Prices:** When the price of rice rises and the seller expects the price to rise further in the future, supply will decrease because the seller will be induced to withhold supplies in order to sell later and earn larger profits.
- **Agricultural Output:** The law of supply may not apply in the case of agricultural commodities because production cannot be increased all at once in the event of a price increase.
- **Subsistence Farmers:** The law of supply may not apply in underdeveloped countries where agriculture is dominated by subsistence farmers.
- **Factors Other Than Price Are Not Constant:** The law of supply is stated with the assumption that factors other than the commodity's price remain constant.

1.6 Conclusion

One of the most fundamental economic laws, the law of supply and demand, is intertwined with almost all economic principles in some way. In practice, the market equilibrium price is determined by people's willingness to supply and demand a good, or the price at which the quantity of the good that people are willing to supply equals the quantity that people demand.

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2. Elasticity of Demand

The responsiveness of the quantity demanded of a commodity to changes in one of the variables on which demand is based is known as elasticity of demand. To put it another way, it's the percentage change in quantity demanded divided by the percentage change in one of the variables that affect demand. The UPSC Indian Economic Syllabus includes the Elasticity of Demand which is described in this article.

2.1 What is Elasticity of Demand?

- Elasticity is defined as the ratio of one variable's percent change to another variable's percent change. It is denoted as follows:
- The elasticity of demand describes how sensitive a good's demand is to changes in other economic variables like prices and consumer benefits. Higher demand elasticity for an economic variable indicates that the customers are more conscious of changes in this variable.

2.2 Types of Elasticity of Demand

1. Price elasticity of demand
2. Cross elasticity of demand
3. Income elasticity of demand
4. Advertisement elasticity of demand

2.2.1 Price elasticity of demand

The percentage change in the quantity required divided by the percentage change in price is known as price elasticity of demand.

2.2.1.1 Measurement of Price Elasticity of Demand

The price elasticity of demand can be measured in three different ways.

1. Proportionate/Percentage method
2. Total expenditure or Total outlay method
3. Geometric method

2.2.2 Cross Elasticity of Demand

The responsiveness to a change in the pricing of related goods is referred to as cross elasticity of demand. It is defined as the ability to respond to changes in commodity X demand in response to a change in commodity Y price.

2.2.3 Income Elasticity of Demand

The responsiveness of demand for a commodity to changes in income, with all other factors, held constant, is known as income elasticity of demand.

2.3 Conclusion

A change in a commodity's price has an impact on its demand. By comparing the percentage price changes with the quantities demanded, we may determine the elasticity of demand or the degree of responsiveness of demand.

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3. Price Elasticity of Demand

The price elasticity of demand is a measurement of how a product's consumption changes in response to price changes. Price elasticity is a term used by economists to describe how supply and demand for a product fluctuate as its price varies. The UPSC Indian Economic Syllabus includes the Capital Goods which is described in this article.

3.1 Price Elasticity of Demand Formula

- **The percentage change in the quantity demanded of a good or service by the percentage change in the price is known as price elasticity of demand.** To put it another way, the price elasticity of demand is the rate at which demand rises or falls in response to a change in price.
- A product's demand might be either elastic or inelastic. It is said to be elastic when the change in demand is proportionately larger than the change in price. It is considered to be inelastic when the change in demand is less than the change in price.
- The price elasticity of demand is measured by the slope of the demand curve. There is a quick change in demand as the demand curve steepens, indicating elasticity. A flatter curve, on the other hand, indicates inelastic demand since demand changes slowly.
- The price elasticity of demand is represented mathematically as follows:

Price Elasticity of Demand (PED) = % change in quantity demanded / % change in price

- **Price elasticity of demand, or PED, is always negative.** To put it another way, it indicates that the price and demand have an inverse relationship.
- A PED value less than one indicates generally inelastic demand, whereas a number greater than one indicates highly elastic demand.

Example of Price Elasticity of Demand

- As a general rule, a product is said to be elastic if the amount required or purchased fluctuates more than the price changes. (For example, if the price increases by 5%, while demand decreases by -10%).
- The product is said to have unit (or unitary) price elasticity if the change in quantity purchased is the same as the price change (for example, 10% /10% = 1).
- Finally, the product is said to be inelastic if the quantity purchased changes less than the price (for example, -5 per cent demanded for a +10 per cent price shift).
- Consider the following scenario to determine demand elasticity: Assume that the price of apples decreases by 6%, from $1.99 per bushel to $1.87 per bushel. As a result, grocery shoppers have increased their apple purchases by 20%. As a result, the elasticity of apples is 0.20/0.06 = 3.33. Apples have a high degree of elasticity in demand.

3.2 Conclusion

The price elasticity of demand measures how a change in the price of a product affects the demand for that product. This will in understanding the behaviour of goods in the economy and what a demand and supply mismatch can result into.

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4. Giffen Goods

A Giffen good is an economic concept that describes a good that individuals consume more of as the price rises. As a result, a Giffen good has an upward-sloping demand curve, which is in violation of the fundamental law of demand. The term "Giffen goods" was coined in the late 1800s and is named after **Sir Robert Giffen, a well-known Scottish economist, statistician, and journalist.** It's worth noting that while all Giffen goods are inferior, not all inferior goods are Giffen.

4.1 What is a Giffen Good?

- **A Giffen good is a low-cost, non-luxury item that contradicts conventional economic and consumer demand theories.** When the price of Giffen goods rises, demand rises, and when the price lowers, demand declines.
- This produces an upward-sloping demand curve in econometrics, in contrast to the fundamental rules of demand, which produce a downward-sloping demand curve.
- The term "Giffen goods" was coined in the late 1800s and is named after **Sir Robert Giffen, a well-known Scottish economist, statistician, and journalist.**
- Giffen goods is a concept that focuses on low-cost, non-luxury products with few close replacements.
- Giffen products are related to Veblen goods, which defy normal economic and consumer demand theory but are more focused on luxury goods.
- **Bread, rice, and wheat** are examples of Giffen products. These items are basic needs with few near-dimensional replacements available at comparable prices.
- Giffen goods are unusual in economics since their supply and demand are in direct opposition to conventional wisdom.
- Multiple market variables, such as supply, demand, pricing, income, and substitution, can result in Giffen goods. The basic theories of supply and demand economics all rely on all of these variables.
- The effects of these variables on low-income, non-luxury items, which result in an upward sloping demand curve, are studied in Giffen goods situations.

4.2 Conditions for a Giffen Good

- The good must be inferior
- The good must form a large percentage of total consumption
- There must be a lack of close substitute goods

4.3 Giffen Goods vs. Veblen Goods

- Both Giffen and Veblen goods are **out-of-the-ordinary items** that defy supply and demand rules.
- The demand curve for both Giffen and Veblen items is upward sloping. As previously noted, income and substitution are important aspects in explaining the econometrics of the upward sloping demand curve for Giffen products.

- **Veblen goods** have an upward sloping demand curve as well, but with notable differences in the influences.
- Veblen products are high-end, luxury items. Perfumes promoted by celebrities or premium wines are two examples.
- The high price of these commodities is associated with a high social status symbol. As a result, these things are more desirable to high-income consumers at a greater price.
- Because income isn't a factor in these commodities, the income effect has little influence. Because the commodities are primarily status symbols and not cross-dimensional, substitution is also a minor factor.

4.4 Conclusion

- A Giffen good is a low-cost, non-luxury item whose demand rises as the price rises, and vice versa.
- The demand curve for a Giffen good is upward-sloping, in contrast to the fundamental principles of demand, which are based on a downward-sloping demand curve.
- The lack of close substitutes and income pressures has a big impact on Giffen's demand.
- Veblen goods are similar to Giffen goods, except they are more upscale.

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5. Veblen Goods

A Veblen good is a good for which demand increases as the price increases, because of its exclusive nature and appeal as a status symbol. The demand curve for a Veblen good is upward-sloping, as opposed to the conventional downward-sloping curve. In contrast to a Giffen good, which is an inferior product with no readily available substitutes, a Veblen good is often a high-quality, valued commodity. The UPSC Indian Economic Syllabus includes Veblen Goods which is described in this article.

5.1 What are Veblen Goods?

- When the price of a good rises, demand rises as well, and vice versa.
- **Diamonds, for example, are a luxury item whose attraction** is based on their high price. It is named after Thorstein Veblen, an American economist.
- In recent years, the **flagship smartphones** prices have increased causing its demand as well to increase like the **iPhones, Samsung Galaxy Fold.**
- Veblen goods are regarded as exceptions to the law of demand, which holds that as a good's price rises, so does its demand, and vice versa.
- Some economists disagree, claiming that the law only applies to absolutely comparable commodities.
- When compared to pricey diamonds, for example, cheap diamonds may appear to be a lesser good in the perspective of the consumer; thus, they are not genuinely comparable.

5.2 Veblen Goods vs. Giffen Goods

- Another class of items that do not precisely follow the law of demand is Giffen goods. Unlike Veblen products, which defy the law of demand once prices reach a certain point, Giffen goods defy the law of demand until prices reach a particular point.
- Furthermore, Giffen products have a negative income effect. A positive relationship exists between the price of a Giffen good and the amount required of the good.

5.3 Conclusion

- A Veblen good is one for which demand rises in tandem with price rises.
- Veblen goods are often high-end, well-made items that are exclusive and serve as a status symbol.
- Affluent consumers who place a priority on the usefulness of a product are more likely to seek for Veblen goods.

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