CLASS 9 SOCIAL SCIENCE

Chapter 9: The Price Puzzle: What Drives the Market

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Chapter at a Glance: *Prices in markets are mainly shaped by demand and supply. This chapter explains the laws and determinants of demand and supply, market equilibrium, dynamic pricing, and why governments sometimes intervene when markets do not produce fair or efficient outcomes.*

1. The Price Puzzle

- Prices do not change randomly. They react to what people want, how much is available, seasons, festivals, trends and sometimes rumours.
- Here we focus on two powerful market forces: demand and supply.
- Their interaction helps determine the prices and quantities of goods and services in a market.

2. Demand

Demand: *The quantity of a product that people are willing and able to buy at a particular price, depending on needs, preferences, season, trends and income.*

- Demand is not merely a desire to buy. A consumer must also have the ability or purchasing power to buy.

Purchasing power: *A measure of how much one unit of a particular currency can buy at a particular time.*

3. Law of Demand

- When the price of a product rises, its quantity demanded generally decreases.
- When the price falls, its quantity demanded generally increases.
- Thus, price and quantity demanded have an inverse relationship, assuming other factors such as income and tastes remain constant.

Price of Mangoes	Quantity Demanded by Srivalli
₹150 per kg	1 kg
₹100 per kg	2 kg
₹50 per kg	3 kg

- A demand schedule presents quantities demanded at different prices in a table.
- When the demand schedule is represented graphically, it forms a demand curve.
- The individual demand curve slopes downward because price and quantity demanded move in opposite directions.

4. Individual Demand and Market Demand

- Individual demand is the quantity of a good or service that one consumer wants to buy at different prices, keeping other factors constant.
- Market demand is the total quantity demanded by all potential buyers at different prices. It is the sum of individual demands.

Price	Srivalli	Alex	Israt	Market Demand
₹150	1 kg	2 kg	3 kg	6 kg
₹100	2 kg	4 kg	6 kg	12 kg
₹50	3 kg	6 kg	9 kg	18 kg

Remember: *The market demand curve can be flatter than an individual demand curve because it combines the responses of many consumers to a price change.*

5. Other Determinants of Demand

Factor	How It Affects Demand	Example
Price of substitute goods	A rise in the price of one substitute may increase demand for the other.	Tea and coffee; mangoes and bananas
Price of complementary goods	Goods used together influence each other's demand.	Smartphones and earphones; cars and petrol
Consumer income	Higher income generally allows consumers to buy more or choose higher-quality products.	Household purchases
Taste and preference	Personal likes and dislikes affect demand.	Preference for mangoes over oranges
Population size and composition	Different age groups create demand for different products.	Sports, formal and orthopaedic shoes
Seasonality	Weather, festivals and cultural habits change demand.	Books at session start; sweets at festivals; jackets in winter
Future price expectations	Expected future price changes can make people postpone or advance purchases.	Waiting for festival discounts

6. Diminishing Marginal Utility

Principle: *The additional utility or usefulness obtained from a product tends to decline as more units of it are consumed.*

- Mangoes as an example: the first mango may give high satisfaction, but additional mangoes provide progressively less extra satisfaction.
- As additional utility falls, willingness to pay may also fall, helping explain lower demand for successive quantities.

7. Supply

Supply: *The quantity of a product that sellers are willing and able to offer at a particular price.*

- Individual supply is the quantity offered by one seller at different prices.

Law of Supply

- As price increases, quantity supplied generally increases.
- As price decreases, quantity supplied generally falls.
- This direct relationship exists because higher prices can raise profitability, encourage producers to increase output and attract new firms.

Price of Mangoes	Quantity Supplied by Seller A
₹50 per kg	1 kg
₹100 per kg	2 kg
₹150 per kg	3 kg

- The supply curve slopes upward because price and quantity supplied move in the same direction.

8. Market Supply

- Market supply is the sum of the quantities supplied by all individual sellers.

Price	Seller A	Seller B	Seller C	Market Supply
₹50	1 kg	3 kg	2 kg	6 kg
₹100	2 kg	4 kg	6 kg	12 kg
₹150	3 kg	7 kg	8 kg	18 kg

- At the start of mango season, supply may be low and prices high. As supply rises during the season, prices may fall.
- When supply is less than demand, prices tend to rise; when supply exceeds demand, prices tend to fall.

9. Other Determinants of Supply

Factor	Effect / Example
Price of related goods	Producers compare profitability. If chickpea prices are high while wheat prices are low, a farmer may grow more chickpeas.
Number of sellers	More sellers can increase market supply; fewer sellers can reduce it.
Technology	Better technology can lower production costs and raise supply, e.g., drip irrigation, weather sensors and cold storage.
Future expectations	Expected higher future demand can encourage greater production; expected higher future prices may also cause sellers to hold back present supply.
Input costs, resources and weather	Changes in production costs, resource availability, weather or disasters can affect supply.

10. Demand and Supply Together

- Market prices emerge from interaction between what buyers are willing to pay and what sellers are willing to accept.
- At low prices, quantity demanded may exceed quantity supplied, creating excess demand or shortage.
- At high prices, quantity supplied may exceed quantity demanded, creating excess supply or surplus.

11. Market Equilibrium

Market equilibrium: *The point where quantity demanded equals quantity supplied. There is neither excess demand (shortage) nor excess supply (surplus), and there is no immediate pressure for the price to change.*

Price	Quantity Demanded	Quantity Supplied	Outcome
₹40	38 kg	6 kg	Excess demand
₹100	12 kg	12 kg	Market equilibrium
₹150	8 kg	43 kg	Excess supply

Example: *Equilibrium Price = ₹100 and Equilibrium Quantity = 12 kg. On the graph, equilibrium occurs where the demand curve and supply curve intersect.*

12. Does Market Equilibrium Exist in the Real World?

- In theory, equilibrium is the intersection of demand and supply.
- Real markets are dynamic. Technology, wages, interest rates, wars, political events, pandemics, weather and natural disasters continuously alter demand and supply.
- Therefore, real-world equilibrium is not permanently stable; markets keep adjusting toward new equilibrium conditions.
- COVID-19 example: demand for face masks rose rapidly, supply initially could not keep up and prices increased. Later, supply adjusted and prices fell.

Dynamic Pricing: Hotel Tariffs

- For example - a 100-room hotel in Goa.

Situation	Illustrative Room Tariff
Off-season weekday in July	₹1,500 per night
Weekend in tourist season in December	₹8,000 per night
New Year's Eve - very high demand	₹25,000 per night

- Hotel tariffs may change according to booking speed, nearby hotel prices, festivals/events, weather forecasts, days left before arrival and past booking trends.
- If a group cancels, a hotel may sharply reduce tariffs to fill empty rooms. This illustrates how real-world prices continuously respond to market conditions.

Revenue: *The total amount of money a business earns from sales or other operating activities before expenses are deducted.*

13. Role of Government in the Economy

- Markets allocate goods and services according to willingness and ability to pay, but this may not always produce fair outcomes.
- Government intervention may be needed to protect vulnerable groups, regulate unfair practices, provide public goods and address monopoly power.

14. Regulation of Unfair Practices

Concept	Meaning / Purpose
Price ceiling	A maximum price a seller is allowed to charge for a product or service; the essential medicines as an example.
Price floor	A lower limit below which a price cannot fall. A minimum wage is presented as an example of a lower limit protecting workers.
Monopoly	A market structure in which a single seller or producer controls the supply of a unique product or service with no close substitutes.

- A monopoly may harm consumer welfare through higher prices, poorer quality or restricted supply.
- The regulators such as RBI for banking, the Central Consumer Protection Authority for consumer rights and unfair trade practices, TRAI for telecommunications, and SEBI for the securities market.

COVID-19 Sanitiser Example

- During COVID-19, demand for sanitisers surged, causing stockouts and sharp price increases.
- Some sellers engaged in hoarding and black marketing.
- The government declared sanitisers essential commodities under the Essential Commodities Act, 1955 and capped the maximum retail price at ₹100 for a 200 ml bottle.
- As more companies began production, sanitisers became more widely available at fairer prices.

Hoarding: *Accumulating goods beyond immediate needs, often because of expected shortages or future price rises.*

Black marketing: *Illegal trade in goods or services that are banned or regulated.*

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15. Provision of Public Goods

- Public goods and services are provided by the government for the benefit of citizens.
- Examples include roads, bridges, public parks, street lighting, national defence, sanitation and drainage systems.
- Private firms may not provide enough of these goods because they often do not generate direct profit.
- The neighbourhood park example shows that people may want to benefit without contributing to the cost, so government provision or funding may be needed for social welfare, development and equal access.

16. Limitations of Government Intervention

Limitation	Explanation
Price distortions and reduced producer incentives	If a government-fixed price is below the market price, producers may reduce supply, creating shortages.
Compliance burdens	Licences, permits and procedures can raise time and costs, especially for small enterprises.
Discourages innovation and entrepreneurship	Heavy regulation and price controls may reduce incentives to invest in better technology or new ideas.

- Example: if wheat is capped at ₹20/kg while the market price would be ₹30/kg, farmers may receive lower returns and reduce production.

Ease of doing business: *How simple it is to start, run and close a business, considering regulations, bureaucratic efficiency and legal frameworks.*

17. Demand vs Supply - Quick Comparison

Point	Demand	Supply
Meaning	Quantity consumers are willing and able to buy	Quantity sellers are willing and able to offer
Price relationship	Inverse	Direct
Curve	Generally downward sloping	Generally upward sloping
Key participants	Buyers / consumers	Sellers / producers
Important determinants	Income, related goods, tastes, population, seasonality, expectations	Related goods, number of sellers, technology, expectations, input costs, weather

18. Key Terms for Revision

Term	Easy Meaning
Demand	Quantity consumers are willing and able to buy.
Law of Demand	Price rises → quantity demanded falls; price falls → quantity demanded rises.
Market demand	Sum of all individual demands.
Substitute goods	Goods that can replace one another.
Complementary goods	Goods generally used together.
Supply	Quantity sellers are willing and able to offer.
Law of Supply	Price rises → quantity supplied rises; price falls → quantity supplied falls.
Market supply	Sum of all individual supplies.
Market equilibrium	Quantity demanded equals quantity supplied.
Shortage / excess demand	Demand is greater than supply.
Surplus / excess supply	Supply is greater than demand.
Price ceiling	Maximum permitted price.
Price floor	Minimum permitted price.
Monopoly	A single seller controls the supply of a product/service without close substitutes.
Public goods	Goods/services provided for broad public benefit.
Hoarding	Holding excessive stocks, often in expectation of shortages or price rises.
Black marketing	Illegal trade in banned or regulated goods/services.

19. Chapter Summary

- Demand shows how much consumers are willing and able to buy, while supply shows how much sellers are willing and able to offer.
- The Law of Demand describes an inverse price-demand relationship; the Law of Supply describes a direct price-supply relationship.
- Demand and supply are affected by several factors other than the product's own price.
- Market equilibrium occurs when quantity demanded equals quantity supplied, but real markets continuously adjust as conditions change.
- Government intervention can protect consumers and workers, control unfair practices and monopolies, and provide public goods.
- Too much intervention can distort prices, create compliance burdens and weaken incentives for innovation and production.

Exam Tip: *Use the chapter's examples while answering: mangoes for demand, supply and equilibrium; tea-coffee for substitutes; smartphones-earphones for complements; Goa hotel tariffs for dynamic pricing; medicines/minimum wages for price controls; and the COVID-19 sanitiser case for government intervention.*