# Theory of Firm

- Market Structure
- Equilibrium of Firm and Industry
- Price Determination under Different Market Conditions

# Theory of Firm

The Theory of Firm explains how firms make decisions regarding production, cost, and pricing.

- ✓ It focuses on profit maximization as the central objective.
- ✓ Firms operate under various market structures such as perfect competition, monopoly, monopolistic competition, and oligopoly.
- ✓ Understanding firm behavior helps analyze resource allocation and price mechanisms in the economy.

Example: A bakery decides how many cakes to bake daily to maximize profit, given ingredient costs and local demand.

# Market Structure

Market structure = the way markets are organized.

Four main types:

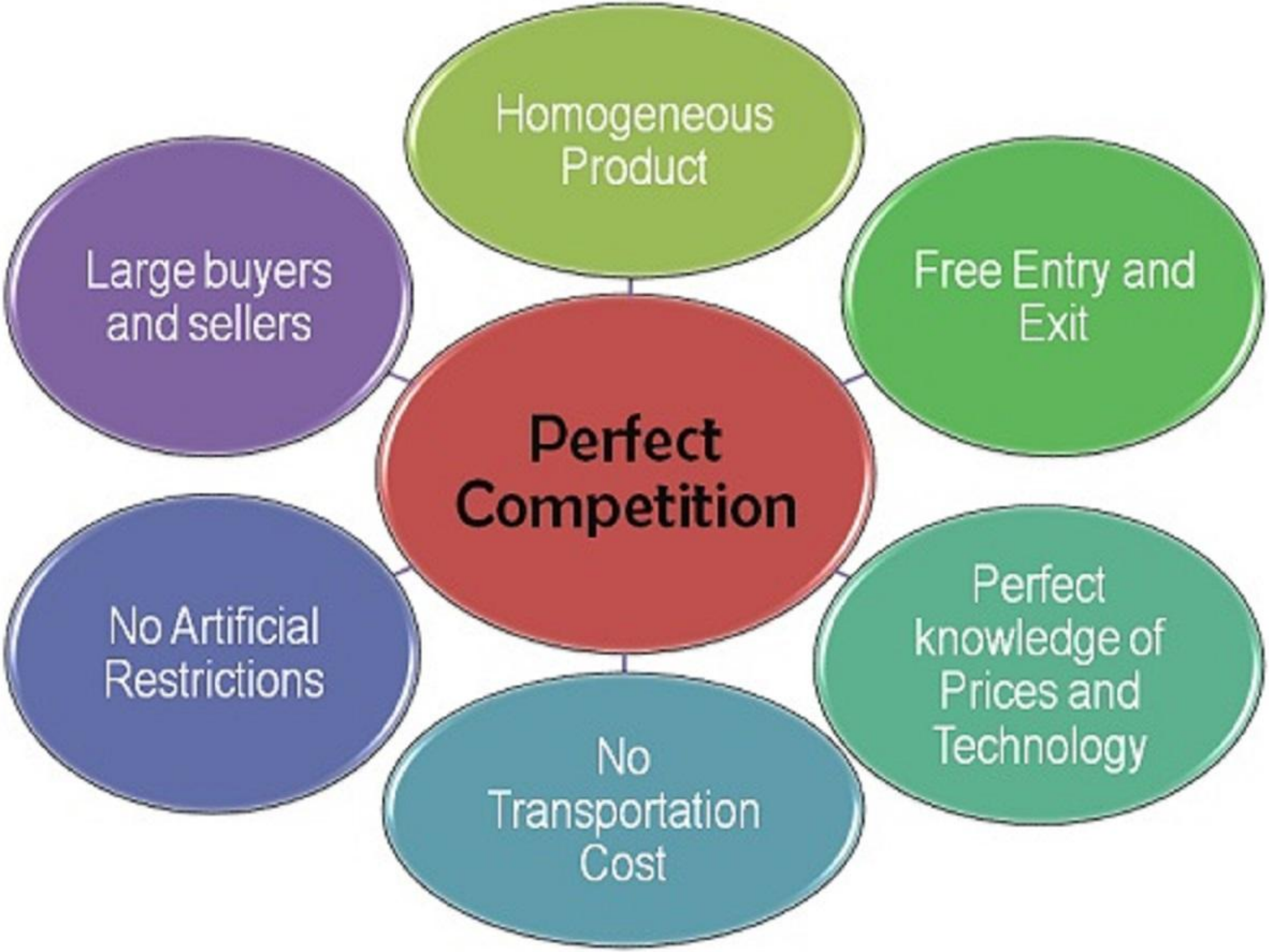
1. Perfect Competition – e.g., agricultural markets like rice or wheat.
2. Monopoly – e.g., Bangladesh Power Development Board (BPDB).
3. Monopolistic Competition – e.g., clothing stores, restaurants.
4. Oligopoly – e.g., mobile telecom industry (Grameenphone, Robi, Banglalink).

# Perfect Competition

Many small firms, identical products, no entry barriers.

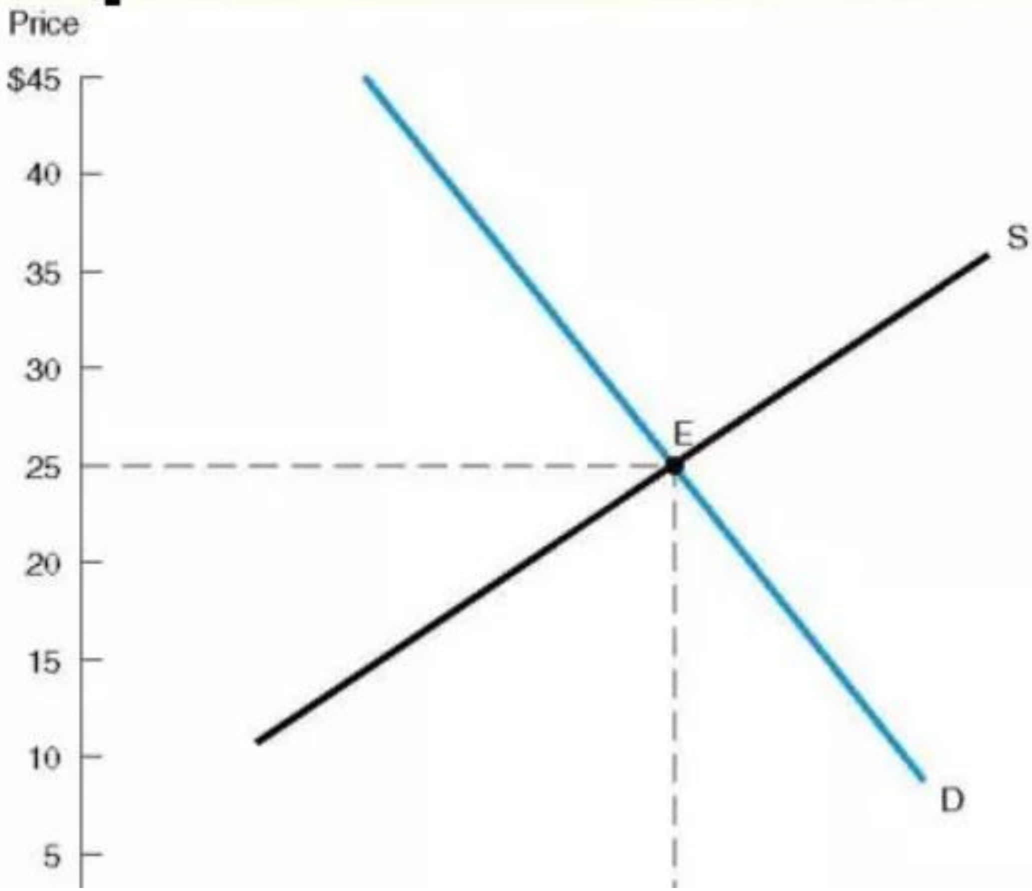
Price determined by demand and supply.

Example: Farmers selling potatoes in a local market. Each farmer must accept the market price.



Homogeneous Product
Large buyers and sellers
Free Entry and Exit
Perfect Competition
No Artificial Restrictions
Perfect knowledge of Prices and Technology
No Transportation Cost

# Perfect Competition




Equilibrium
$Q_D = Q_S$

Ex:
$Q_D = 13 - .2P$
$Q_S = .4P-2$

Find equilibrium price and quantity

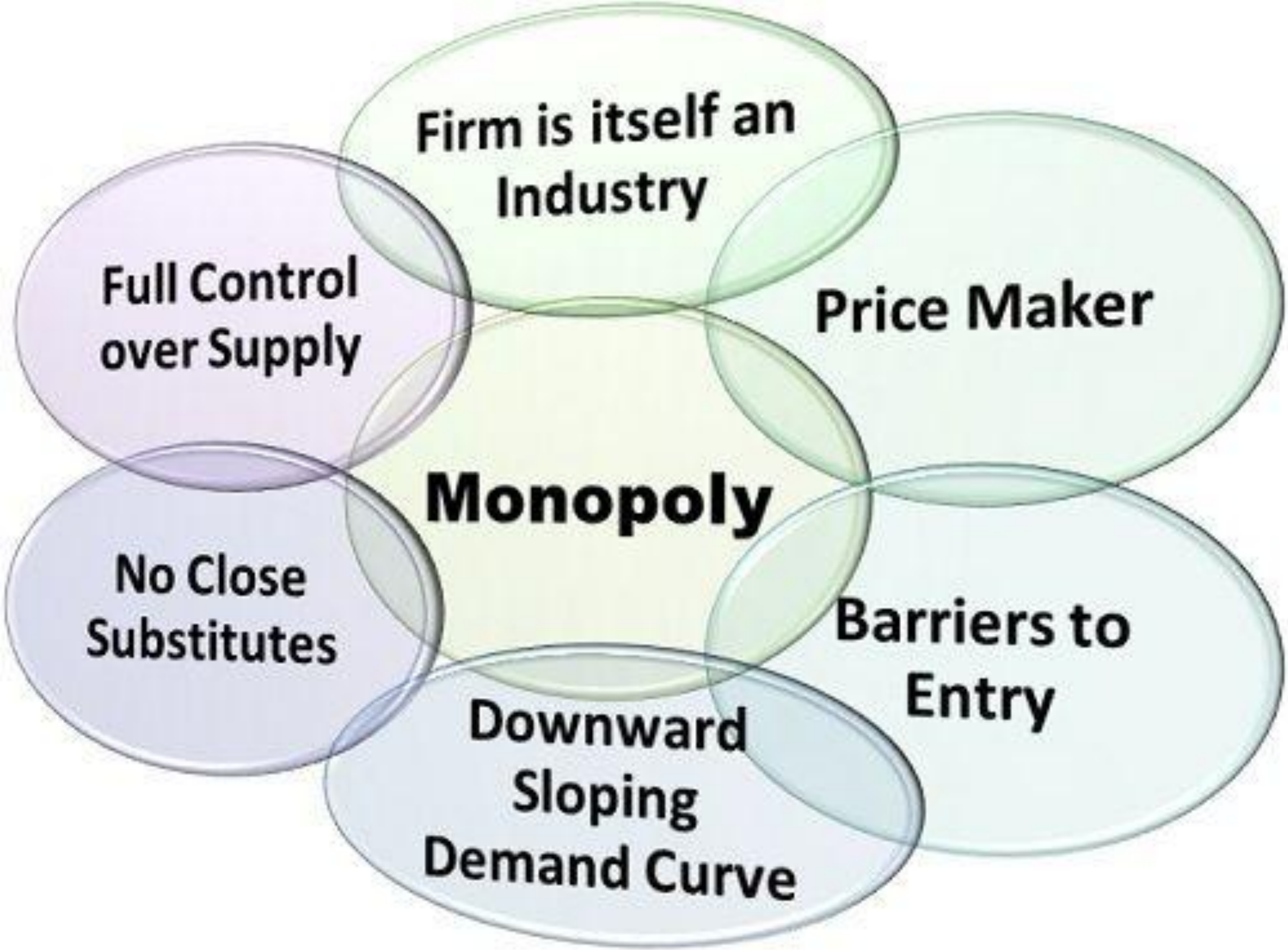
# Monopoly

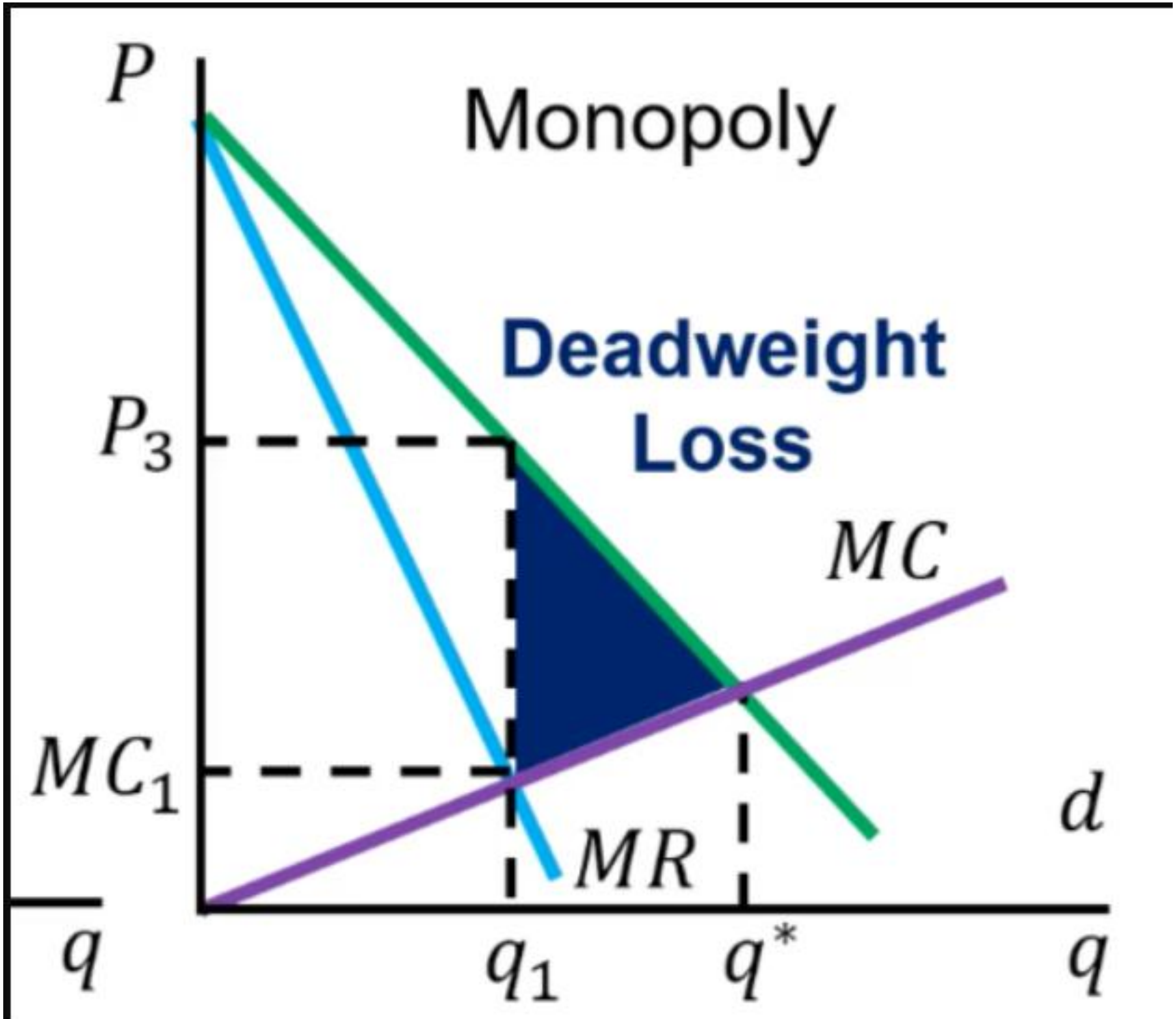
One seller, no close substitutes, high entry barriers.

Example: Dhaka Water Supply and Sewerage Authority (WASA) – the only provider of piped water.

Price is set by the monopolist where MR = MC.

Consumers have no alternative supplier.


Firm is itself an Industry
Full Control over Supply
Price Maker
Monopoly
No Close Substitutes
Barriers to Entry
Downward Sloping Demand Curve


P
Monopoly
Deadweight
Loss
$P_3$
MC
$MC_1$
d
MR
q
$q_1$
$q^*$
q

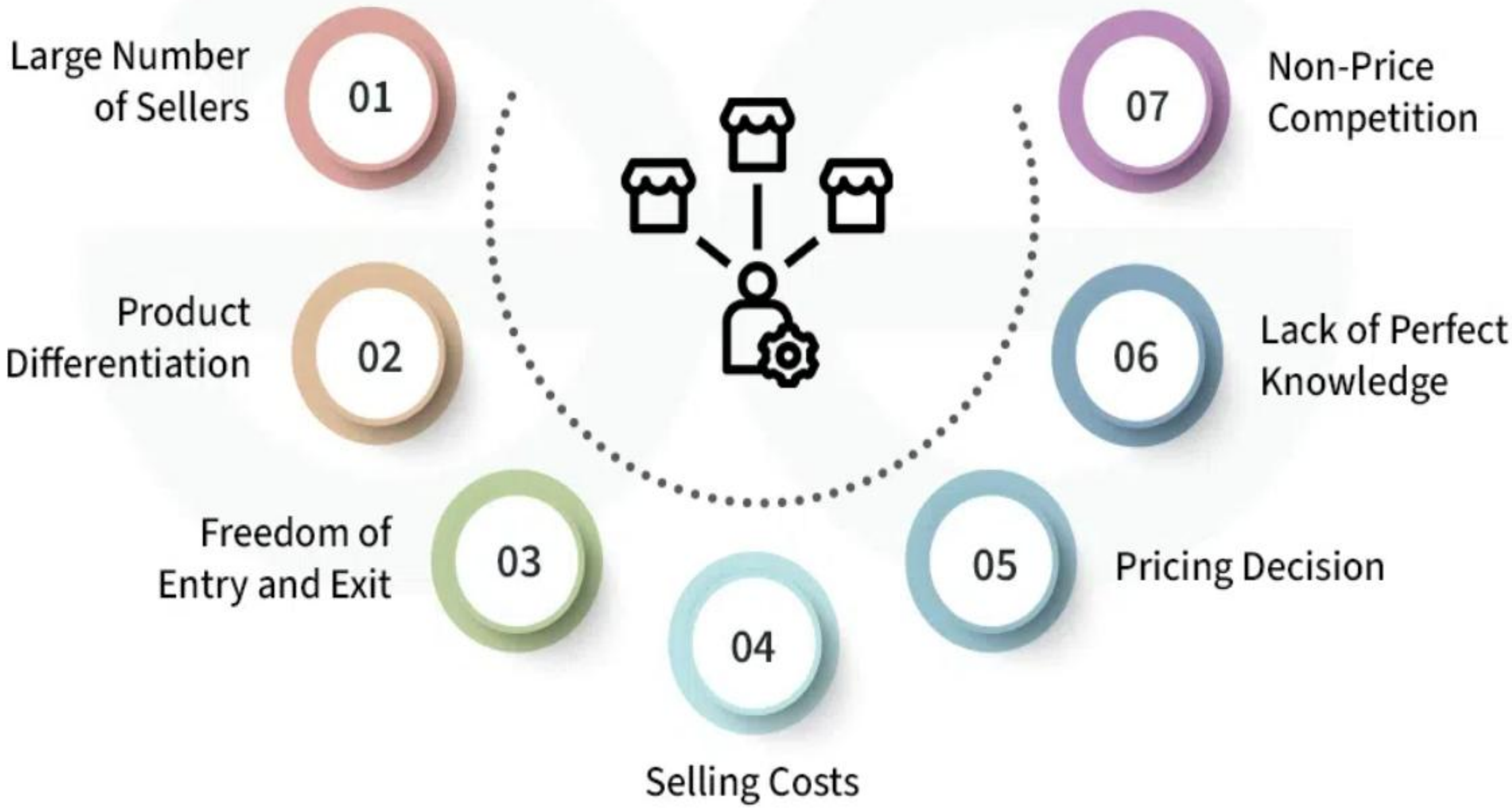
# Monopolistic Competition

**Many firms offering differentiated products.**

**Example: Fast-food chains (e.g., KFC, Pizza Hut, and local restaurants) – each offers similar but not identical meals.**

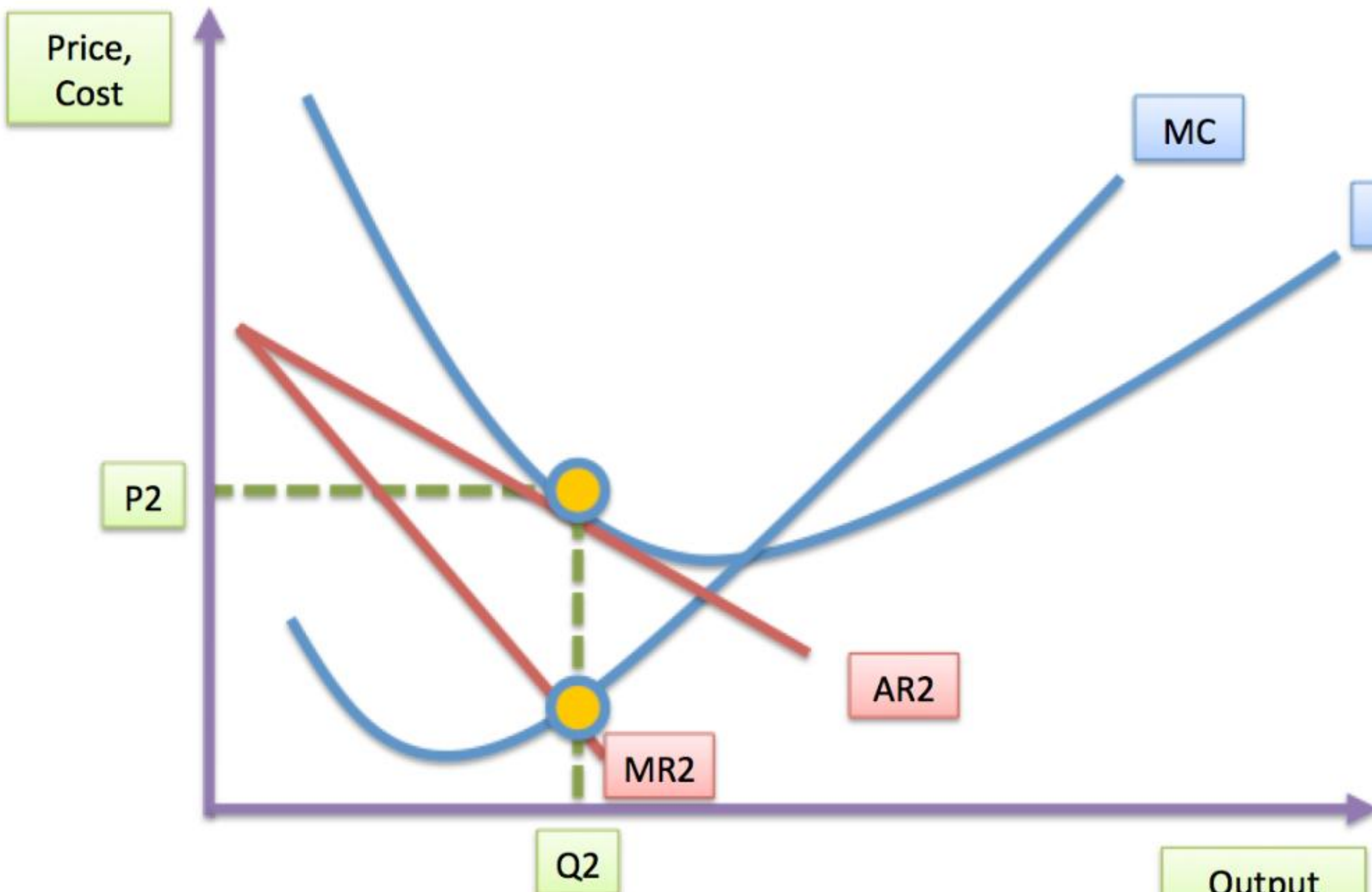
- **Short-run: Firms may earn profit.**
- **Long-run: Entry of new firms reduces profit to normal levels.**

# Features of Monopolistic Competition



# Long Run Equilibrium with Monopolistic Competition

Profits are competed away as demand shifts inwards to AR2



# Oligopoly

Few large firms dominate; interdependent pricing.

**Example: The mobile phone service industry-when Grameenphone lowers prices, Robi and Banglalink often respond similarly.**

- ✓ Game theory and collusion can explain pricing behavior.
- ✓ Price rigidity is common.

# Features of Oligopoly Market

01 Few Firms

02 Non-Price Competition

03 Interdependence

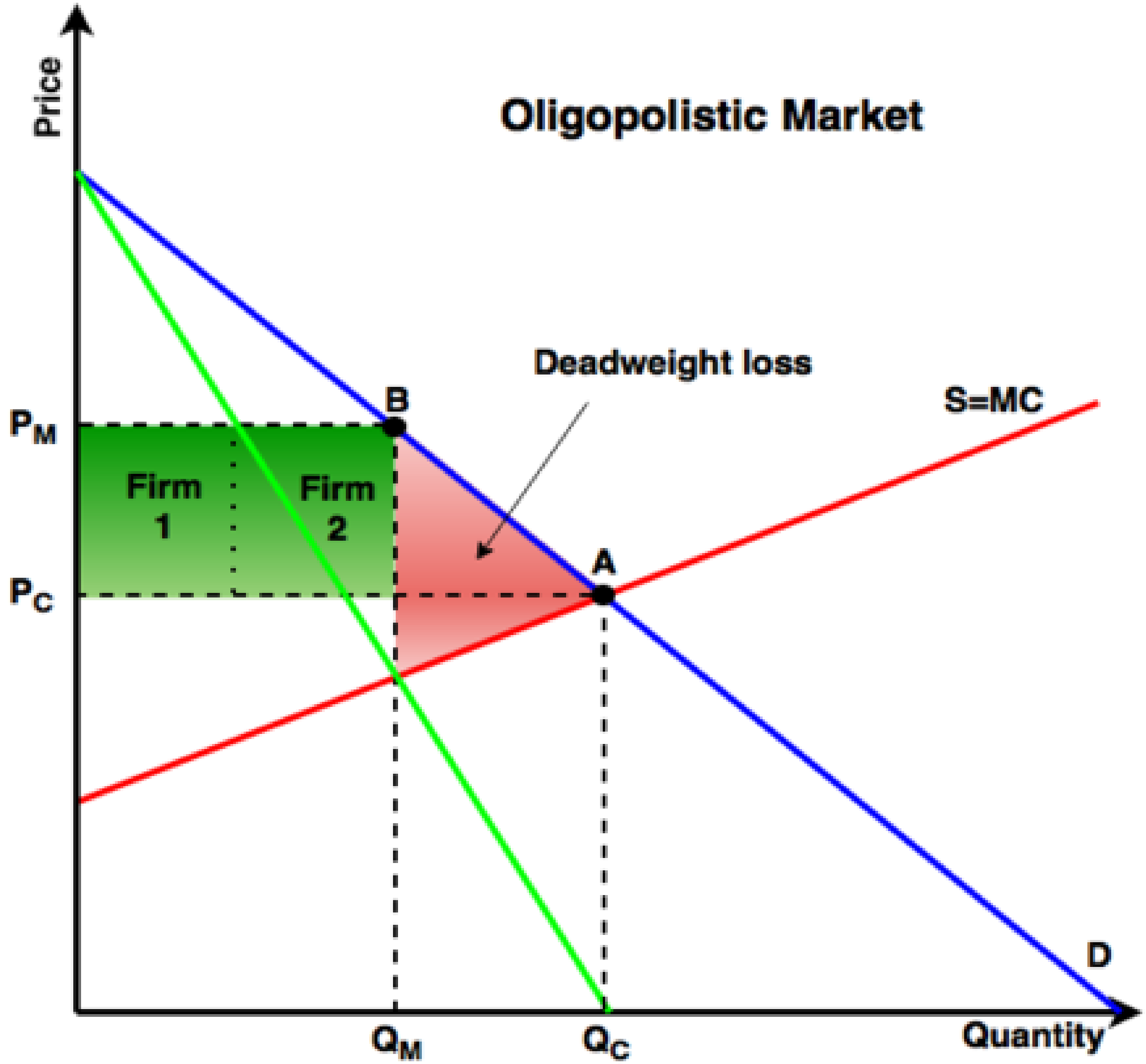
04 Barriers to Entry of Firms

05 Role of Selling Costs

06 Nature of the Product

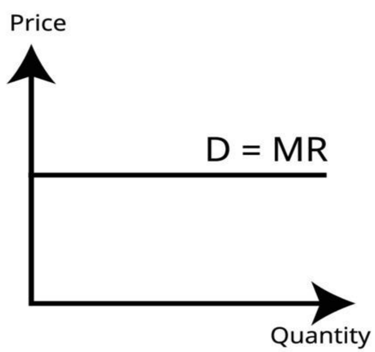
07 Group Behaviour

08 Intermediate Demand Curve

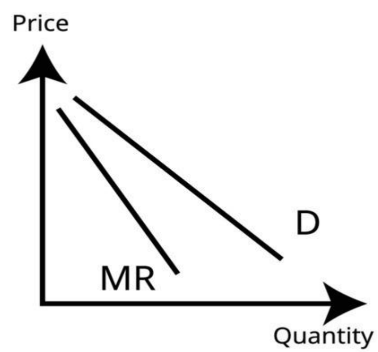


Oligopolistic Market
Price
Quantity
Deadweight loss
B
A
S=MC
D
$P_M$
$P_C$
$Q_M$
$Q_C$
Firm 1
Firm 2

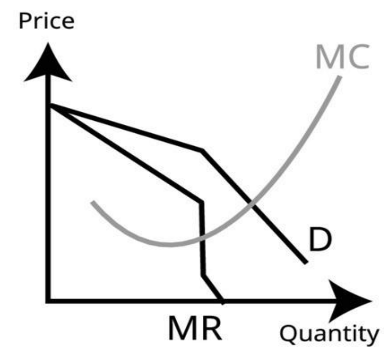
# Comparison of Market Structures



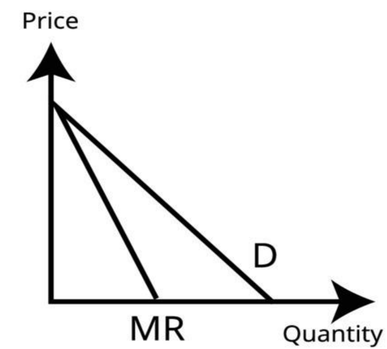

Perfect Competition




Monopolistic Competition




Oligopoly



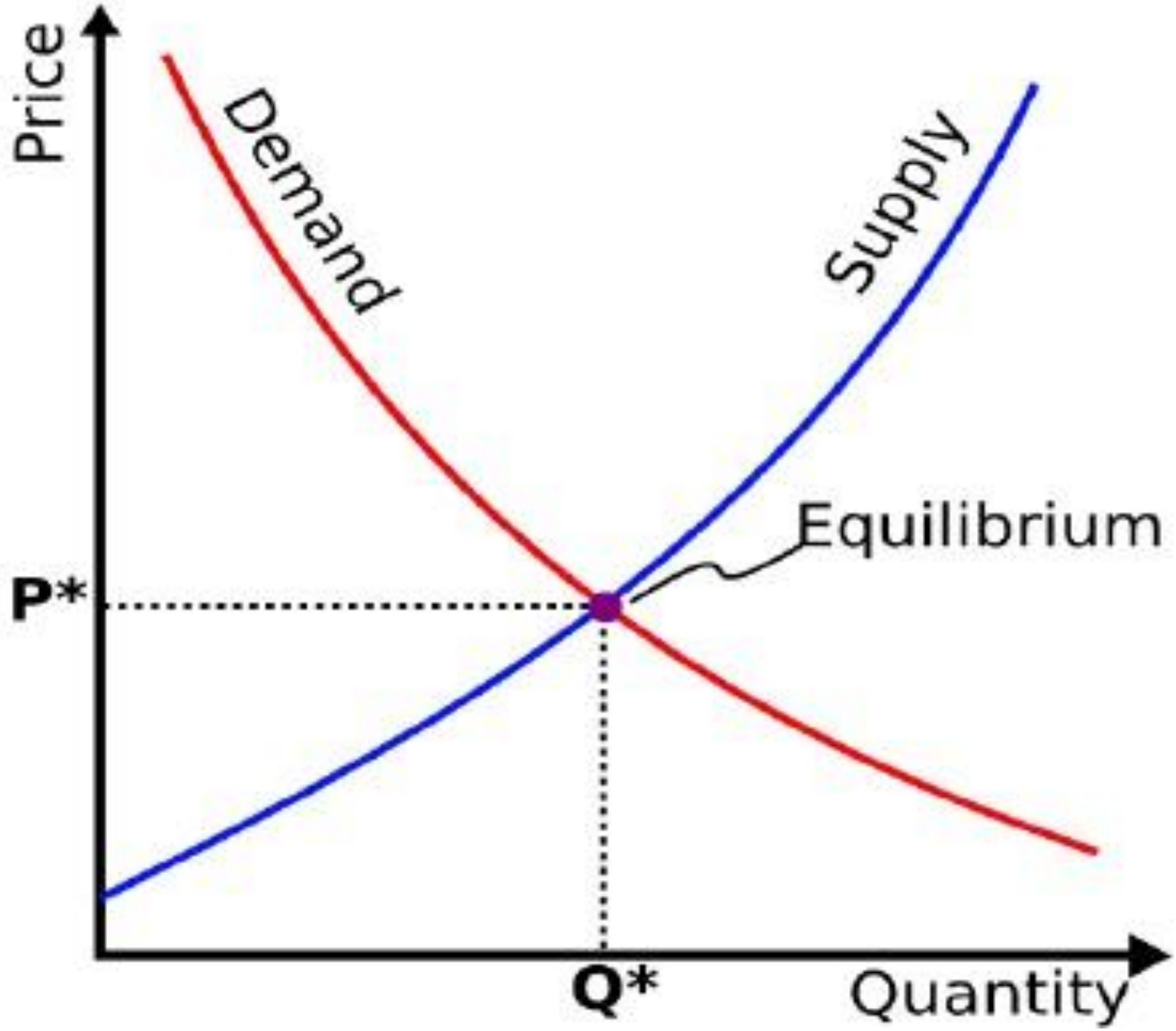

Monopoly

# Equilibrium of the Firm

A firm is in equilibrium when Marginal Revenue (MR) = Marginal Cost (MC).

Example: A shoe factory increases production as long as producing an extra pair earns more revenue than its cost.

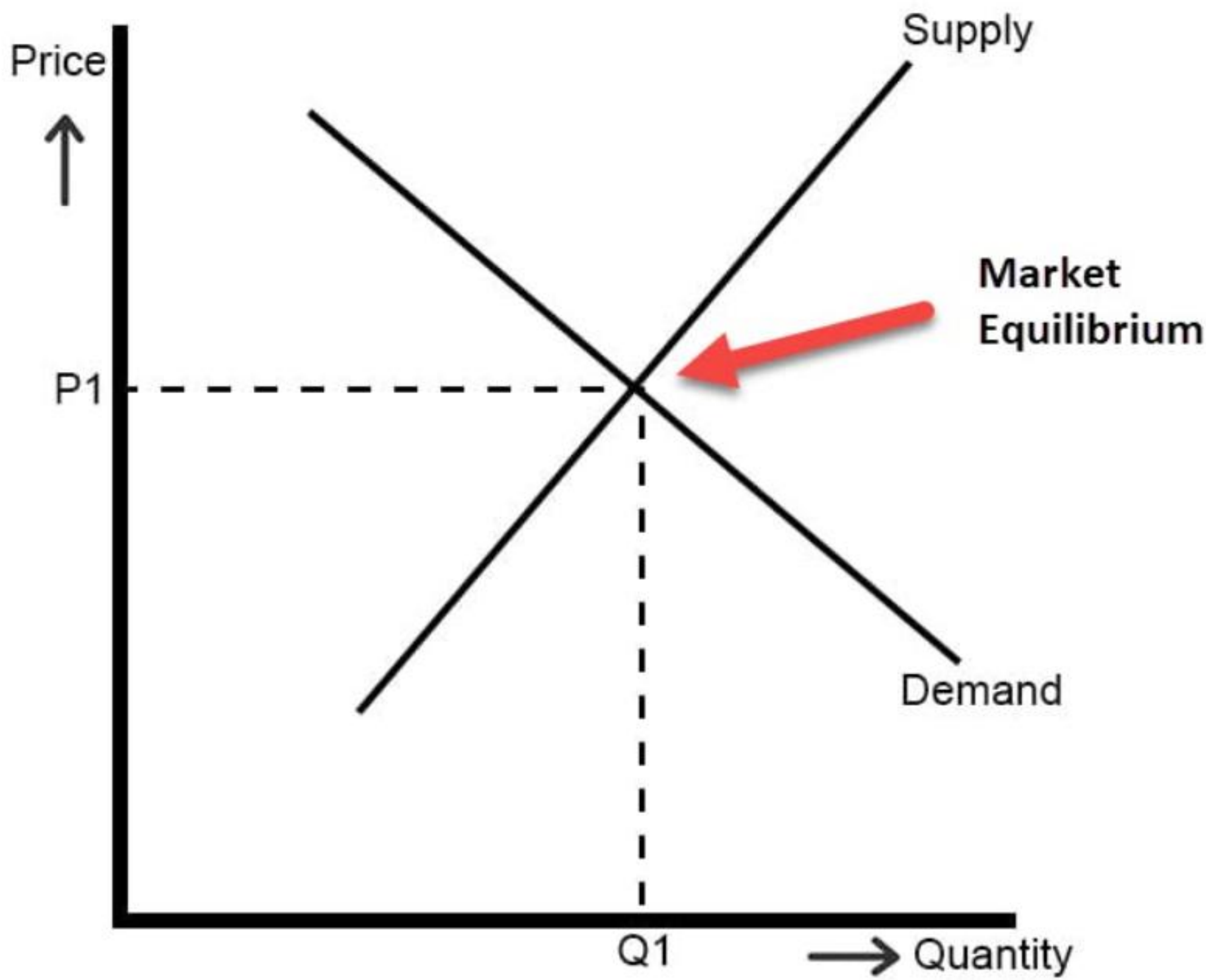
In the short run, abnormal profits or losses are possible.


Price
Demand
Supply
Equilibrium
P*
Q*
Quantity

# Equilibrium of the Industry

Achieved when all firms earn normal profits and no one has incentive to enter or leave.

Example: In the garment industry, if all firms are earning just normal profits, new firms won't enter, and existing firms won't exit.


Price
Supply
Market
Equilibrium
P1
Demand
Q1
Quantity