Market Failure & Externalities

Assessment Objectives

Specific Expectations	
AO2	Explain market failure as the failure of the market to achieve allocative efficiency
AO2	Explain that socially optimum output is produced when there is allocative efficiency; this occurs when MSC = MSB and social (community) surplus is maximum.
AO4	Draw a diagram illustrating allocative efficiency and socially optimum output.
AO2	Explain the meaning of externalities as an example of market failure

Market Failure

- **Market failure** refers to the failure of the market to allocate resource efficiently.
  - Market failure results in **allocative inefficiency**, where too much or too little of goods or services are produced and consumed from the point of view of what is socially most desirable.
  - Where there is market failure there is justification to modify the way the market works to allocate resources differently.
  - **Overprovision** of a good means too many resources are allocated to its production (overallocation).
  - **Underprovision** means that too few resources are allocated to its production (underallocation).
  - There are several factors that can lead to market failure:
    - Existence of externalities
    - Market power
    - Asymmetric information

Pareto Optimality & Externalities

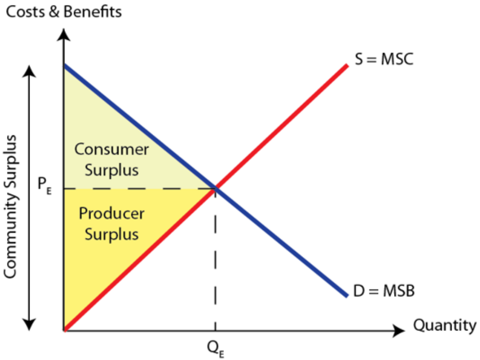
- **Pareto optimality** refers to a market situation where no one can be made better off without making someone else worse off.
  - There are no possible combinations of price and quantity that can improve one group's situation without hurting the other.
  - At a normally functioning competitive equilibrium, there exists a state of Pareto optimality.
  - **Community surplus** = **Producer surplus** + **Consumer surplus**
  - The maximization of community surplus is synonymous with Pareto optimality and is achieved at P_E and Q_E where MSB = MSC.
  - **Marginal private costs (MPC)** refer to costs to the producers of producing one more unit of a good.
  - **Marginal social costs (MSC)** refer to the costs to society of producing one more unit of a good.

Pareto Optimality & Externalities

- MSC = MPC + External costs

- **Marginal private benefits (MPB)** refer to benefits to consumers from consuming one more unit of a good.
- **Marginal social benefits (MSB)** refer to benefits to society from consuming one more unit of a good.
  - MSB = MPB + External benefits
- **Socially optimum output** refers to the level of output that is best from the socially point of view, determined by the achievement of allocative efficiency.
  - Occurs when marginal social benefits are equal to marginal social costs MSB = MSC.
  - When there is no externality, the competitive free market leads to an outcome where MPC = MSC = MPB = MSB indicating allocative efficiency.

Pareto Optimality & Externalities



- **Externality** occurs when the actions of consumers or producers give rise to negative or positive side-effects on other people who are not part of these actions, and whose interests are not taken into consideration.

Pareto Optimality & Externalities

- An externality creates a divergence between MPC and MSC or between MPB and MSB.
  - **Positive externality** a type of externality where side-effects on third parties are positive or beneficial, also known as "spillover benefits".
  - **Negative externality** a type of externality where the side-effects on third parties are negative or harmful.
  - Externalities can result either from consumption activities (**consumption externalities)** or from production activities (**production externalities)**.
- The free market leads to an outcome when MPB $=$ MPC, but where MSB is not equal to MSC (MSB $\neq$ MSC), indicating allocative inefficiency.
- Either too much (**overallocation**) or too little (**underallocation**) is produced or consumed relative to the social optimum.