



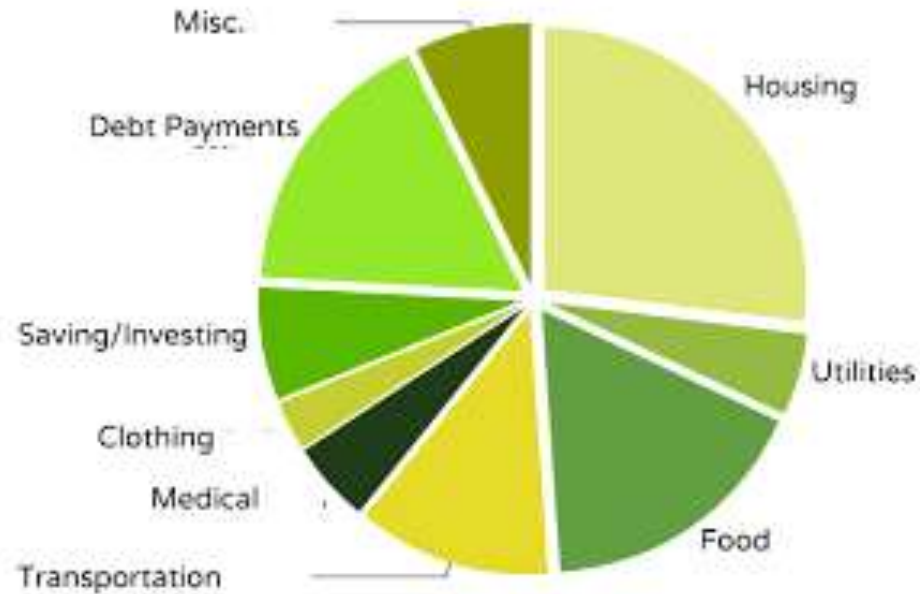
MARKET FAILURE

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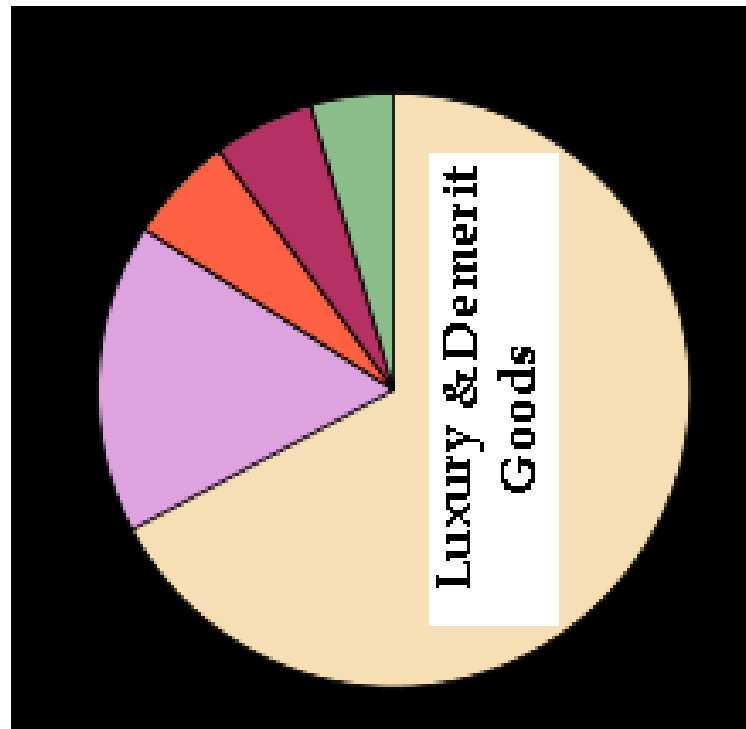


- **During COVID –food packets are distributed**
- **Education- literacy**
- **Why not leave it to market?**

Pictorial representation of Allocation



Societal welfare



Less than optimal outcome ,

- **The individual incentives**
- **for rational behavior do not lead to rational outcomes for the group or society**

Efficiency in resource allocation

- **That which maximize the general satisfaction of society's needs and wants**
- **Perfect competition is a precondition**

Market failure

- **The market fails to allocate resources efficiently**
and therefore
- **Market outcomes become inefficient.**

For us

- **The Market should give us the best outcome**
- **There should be no over production**
- **There should be no under production**
- **There should be optimal output**
- **There should be optimal price**

Two levels of market failure

- **Complete market failure - when the market does not supply products at all – there is a missing market**
- **Partial market failure - when the market functions but it supplies either the wrong quantity of a product or at the wrong price**

Efficiency in resource allocation

- **That Which maximize the general satisfaction of society's needs and wants**
- **Perfect competition is a precondition**

- **Pollution ?**
- **Traffic Congestion?**
- **Deforestation , Loss of biodiversity**
- **Health problems – alcohol, tobacco , drugs**
- **Depleted fish stocks**

Externalities

- External effects
- Spillover effects
- Neighbourhood effects
- Third-party effects
- Side-effects

Unique feature

- **It is initiated and experienced not through the operation of the price system, but outside the market**
- **Such costs or benefits are not accounted for by the market price**

- **Costs or benefits that are not included in the market price of a good because they are not included in the supply price or the demand price.**

The price system

- works efficiently
- because market prices convey information to both producers and consumers
- Signals to ----

Briefly put

- **Failure on the part of the market system to provide the optimum level of production of a product or service**

Efficiency in resource allocation

- **That Which maximize the general satisfaction of society's needs and wants**
- **Perfect competition is a precondition**

Allocative efficiency

- **Also referred to as Pareto Efficient Allocation.**
- **Resources cannot be readjusted to make one consumer better off without making another worse off**
- **Named after Vilfredo Pareto (1848– 1923).**

Two levels of market failure

- **Complete market failure - when the market does not supply products at all – there is a missing market**
- **Partial market failure - when the market functions but it supplies either the wrong quantity of a product or at the wrong price**

Two types of market failure

- **Demand-side market failures**
- **Supply side market failures**

Why do markets fail?

- **Market power**
- **The ability of buyers or sellers to exert influence over the price or quantity of a good, service, or commodity exchanged in a market**

Depends on

- **Market power largely depends on the number of competitors on each side of the market**
- **Sellers' power**
- **Buyers' Power**

- **When competition is weak
,there is market power**

Market Power

- **Existence of monopolies and oligopolies**
- **Collusion**
- **Price fixing**
- **Abnormal profits**
- **Barriers to entry**

Externalities

- External effects
- Spillover effects
- Neighbourhood effects
- Third-party effects
- Side-effects

Externalities

- **Anything that one individual does, may have, at the margin, some effect on others**
- **The cost or benefit that affects a party who did not choose to incur that cost or benefit**

There is an externality

When some agent's actions directly influence either the production possibility set of a producer or the well-being of a consumer.

What is it?

- **The actions of either consumers or producers result in costs or benefits that do not reflect as part of the market price.**
- **Such costs or benefits which are not accounted for by the market price are called externalities because they are “external” to the market.**

Unique feature

- **It is initiated and experienced not through the operation of the price system, but outside the market**
- **Such costs or benefits are not accounted for by the market price**

- **Costs or benefits that are not included in the market price of a good because they are not included in the supply price or the demand price.**

Note

- **Externality occurs outside the price mechanism**
- **It has not been compensated for**
- **It is uninternalized**
- **Or the cost of it is not borne by the parties**
- **Or the benefit of it is not paid by the parties**

?

- **A consequence of an economic activity experienced by unrelated third parties**
- **Externalities cause markets to be inefficient, and thus fail to maximize total surplus.**

Note

- **The indirect effects have an impact on the consumption and production opportunities of others,**
- **but the price of the product does not take those externalities into account**

■ **Externality can be either positive or negative**

Positive externality or external benefit

- **An externality that is favourable or beneficial to the recipient is a positive externality or external benefit**

Positive Externalities

- **Immunizations**
- **Restored historic buildings**
- **Research into new technologies**
- **Training**

Negative externality or external cost

- **An externality that is unfavorable or harmful to the recipient is a negative externality or external cost**

Negative Externalities

- **Pollution**
- **Cigarette smoking**
- **Barking dogs (loud pets)**
- **Loud stereos in an apartment**
- **Ear splitting Microphones**
- **Rash Bike riders**

Externalities may be

- **Unidirectional or reciprocal**
- **The four possible types are:**
- **Negative production externalities**
- **Positive production externalities**
- **Negative consumption externalities**
- **Positive consumption externalities**

A negative externality

- **initiated in production which imposes an external cost on others**
- **may be received by another**
- **in consumption or**
- **in production.**

- **Negative externalities
lower living standards and
waste resources.**
- **Traffic congestion**
- **People who text while
driving**

A positive consumption externality

- **Initiated in consumption that confers external benefits on others**
- **May be received by others**
- **In consumption or**
- **In production.**

Examples

- **Painting your house or beautifying your garden**
- **Flu shot**
- **Immunization**

Externalities cause market inefficiencies

- **because they hinder the ability of market prices to convey accurate information about how much to produce and how much to buy.**

Private Costs and Social Costs

- **Private cost is the cost faced by the producer or consumer directly involved in a transaction**
- **EG. Direct cost of production only**
- **Does not incorporate externalities.**

Be clear about the terms used in the analysis

- **Marginal private cost (MPC)**
- **also known as marginal cost of production. (represented by the supply curve)**

Marginal external cost (MEC)

- Marginal Social cost (MSC)
- (=MPC+MEC)

Marginal social cost

- **Sum of marginal cost of production and marginal external cost**
- **The marginal social cost curve is obtained by adding marginal cost and marginal external cost for each level of output ($MSC = MC + MEC$).**

Marginal private benefit (MPB)

- = marginal willingness to pay (represented by the demand curve)
- Marginal external benefit (MEB) is
- Marginal Social benefit (MSB) .(= $MPB + MEB$)

When no externality is present,

- **there are no external costs**
- **marginal social cost is the same as marginal private cost;**
- **and marginal social benefit is the same as marginal private benefit.**
- **$MPC=MSC$ and $MPB=MSB$**

what is ‘socially optimal output’?

- **that amount of output which takes into account all benefits (private as well as external)**
- **and all costs (private as well as external)**

- **MSB=MSC i.e**
- **marginal social benefit =
marginal social cost**

The efficient level of output

- **Is the level at which the price of the product is equal to the marginal social cost (MSC) of production: the marginal cost of production plus the marginal external cost of dumping effluent**

Simply put

- **‘the last unit produced should yield benefits to society that exactly equals the costs to society for producing the last unit’.**

Social cost = private cost + external cost

- **The total costs to the society on account of a production or consumption activity**
- **Private costs borne by individuals directly involved in a transaction together with the external costs borne by third parties not directly involved in the transaction.**

Divergence between private and social costs of production

- **Negative production externalities**
- **Social costs exceed private cost**
- **There will be over-production and market failure.**

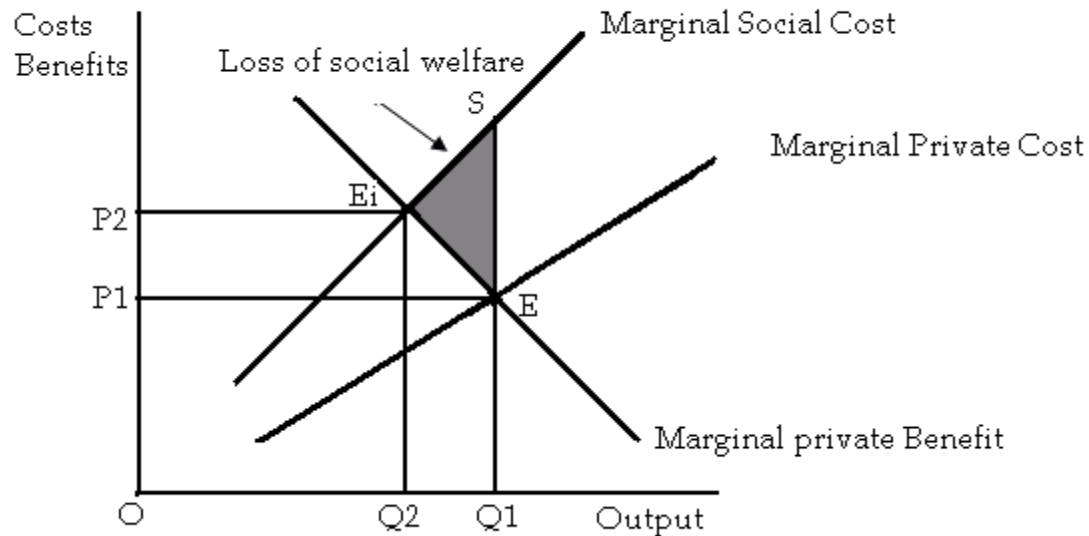
Example

- Power plants generating electricity
- The company's incentives are determined by the private monetary costs and benefits of generating power, such as the price of coal, the price earned for a kilowatt of energy, and so on

- **Prices tend to reflect only the private costs of the producer and not externalities**
- **Producers of products with extensive negative externalities are not fully accountable for the full cost of their production which includes private as well as social costs.**

- **Production remains efficient only when all benefits and costs are paid for.**
- **Firms do not have to worry about the negative externalities associated with their production, the result is excess production and unnecessary social costs.**

Negative Externalities and Loss of Social welfare



- **Total external cost increases with output —there is more pollution**
- **The marginal external cost measures**
- **The added cost of the externality associated with each additional unit of output produced**

Marginal external cost

- **Increase in cost imposed externally as one or more firms increase output by one unit.**
- **The MEC curve is upward sloping**
- **As the firm produces additional output and dumps additional effluent, the incremental harm to the fishing industry increases**

Marginal social cost

- **Sum of marginal cost of production and marginal external cost**
- **The marginal social cost curve is obtained by adding marginal cost and marginal external cost for each level of output ($MSC = MC + MEC$).**

- **Negative consumption externalities lead to a situation where the social benefit of consumption is less than the private benefit**

The efficient level of output

- **Is the level at which the price of the product is equal to the marginal social cost (MSC) of production: the marginal cost of production plus the marginal external cost of dumping effluent**

- **The price of steel is P_1 at the intersection of the demand and supply curves**
- **The market price is too low—it reflects the firms' marginal private cost of production, but not the marginal social cost.**
- **Only at the higher price P_2 will steel firms produce the efficient level of output.**

Loss of welfare

- **For each unit produced above Q_2 , the social cost is given by the difference between the marginal social cost and the marginal benefit (the demand curve).**

From a social point of view

- **the firm produces too much output.**

- **The economic inefficiency is the excess production that results in too much effluent being dumped in the river**

- **When we move from the profit-maximizing to the socially efficient output**
- **Firms are worse off because their profits are reduced, and**
- **Purchasers of steel are worse off because the price of steel has increased**

Public Goods

- **Paul A. Samuelson ‘collective consumption good’**
- **consumed by society as a whole**
- **without reducing the availability of the good to others**
- **cannot be withheld from people who do not directly pay for them**

Characteristics of Public Goods

- **Nonrival in consumption.**
- **Non-excludable.**
- **Characterized by indivisibility**
- **The total amount consumed is the same for each individual.**
- **No direct payment by the consumer is involved**

Do not conform to the settings of market exchange

- **Once a public good is provided, the additional resource cost of another person consuming the goods is zero.**
- **The property rights of public goods cannot be determined with certainty.**
- **The owners of such products cannot exercise sufficient control over their assets**

Public goods are extremely valuable

- **But left to the market,**
- **They will not be produced at all**
- **Or will be under produced.**

- **Competitive private markets will fail to generate economically efficient outputs of public goods.**
- **That is why public goods are often (though not always) under-provided in a free market.**

Rivalrous and Excludable

- Private goods

Criteria for classification of goods

- **Goods are classified as private or public on the basis of whether their consumption is rival and excludable.**

Classification of public goods

Rivalrous and Non-excludable

**Common resources such as
fish**

stocks, forest resources, coal

Rivalrous and Excludable

- Private goods

Rivalrous and Non-excludable

**Common resources such as
fish**

stocks, forest resources, coal

Non-rivalrous & Excludable

- **Club goods, cinemas,**
- **private parks, satellite television**

Non-rivalrous & Non-excludable

- **Pure public goods such as national defence**

Impure public goods

- **Are partially rivalrous or congestible**
- **The benefit that an individual gets from an impure public good depends on the number of users**
- **Reduces, but does not eliminate, the benefits that other people receive**
- **Often excludable.**

Implications of possibility of exclusion

- **Free riding can be eliminated**
- **Impure public good may be provided at a price or fee.**
- **Able to control the degree of congestion**

- **Club goods**
- **Variable use public goods**

Quasi Public Goods Mixed Goods .Near Public Good

- **Focuses on the mix of services that arise from the provision of the good**
- **Possess nearly all of the qualities of the private goods and some of the benefits of public good**

Outcome

- **Infinite benefits and the ability to charge a price**
- **results in some quasi-public goods being sold through markets and others being provided by government**

Common access resources common pool resources

A special class of impure public goods

- **Rival in nature and their consumption lessens the benefits available for others**
- **Available free of charge**
- **Overuse them and cause their depletion and degradation**
- **Eg. Natural resources**

‘Tragedy of the commons’

- **Rivalrous but non excludable goods are overused, to the disadvantage of the entire universe**

Global Public goods

- **Final public goods which are ‘outcomes’,**
- **Intermediate public goods, which contribute to the provision of final public goods.**

- **The environmental commons**
- **Communicable diseases**
- **International trade**
- **International financial architecture,**
- **Global knowledge for development**
- **There is no mechanism (either market or government) to ensure an efficient outcome.**

The free rider Problem

The incentive to let other people pay for a good or service, the benefits of which are enjoyed by an individual is known as the free rider problem.

FACT

- **If individuals cannot be excluded from the benefit of a public good, then they are not likely to express the value of the benefits which they receive as an offer to pay.**
- **There is no meaningful demand curve for public goods**

RESULT

- **If every individual plays the same strategy of free riding, the strategy will fail because nobody is willing to pay and therefore nothing will be provided by the market.**
- **Then, a free ride for any one becomes impossible.**

Possible outcomes

- **No public good will be provided in private markets**
- **Private markets will seriously under produce public goods even though these goods provide valuable service to the society.**

Incomplete information

- **Information failure**
- **Misallocation of scarce resources**
- **Equilibrium price and quantity not established through price mechanism.**
- **This results in market failure.**

Asymmetric information

- **The ‘lemons problem’,**
- **Adverse selection**
- **Adverse selection is a situation in which asymmetric information about quality eliminates high-quality goods from a market.**
- **Health insurance.**
- **Used car market**

- **Driving of high-quality products out of the market by low-quality products.**
- **This results because buyers are unable to determine the quality of the product and thus offers a price appropriate only for average-quality products.**



Result

- **Since sellers do know the quality of their products (i.e., Information is asymmetric)**
- **Sellers of high-quality products refuse to sell their products at the average price**
- **Therefore only low-quality products will be offered for sale (adverse selection)**

- **Adverse selection pertains to a situation where hidden attributes affect a transaction before it occurs**
- **Adverse selection is the direct result of asymmetric information.**

- **In the insurance market adverse selection is the tendency for people with higher risk to obtain insurance coverage to a greater extent than persons with lesser risk**

Why?

- **Insurers know less about the health conditions of buyers are therefore unable to differentiate between high-risk and low-risk persons**

Moral hazard

- **Opportunism characterized by an informed person's taking advantage of a less-informed person through an unobserved action.**
- .

- **Moral hazard is about hidden actions post transaction that may have an adverse impact on one of the parties in the transaction**

- **Moral hazard in insurance occurs when the expected loss from an adverse event increases as insurance coverage increases**

- **Distortion of incentives to take care or to exert effort when someone else bears the costs of the lack of care or effort**

Moral hazard

- **Arises whenever there is an externality (i.e., Whenever an economic agent can shift some of its costs to others).**
- **Then the economic agent will not be as careful to avoid a possible loss.**
- **This increases the probability of a loss and higher pay outs for the insurance company.**

Why?

- **Insurers know less about the health conditions of buyers are therefore unable to differentiate between high-risk and low-risk persons**

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