**MEANING OF MARKET FAILURE**

Market failure can be defined as a situation where the quantity of a product demanded by consumers is not equal to the quantity supplied by suppliers. It occurs mainly due to inefficient allocation of goods and services in the free market. In such a situation, the social costs incurred in the production of goods are not minimised, resulting in wastage of resources. Thus, equilibrium between supply and demand of the product is not reached. Let us understand the concept of market failure with the help of an example. It is known that wages are defined in accordance with the minimum wage laws. Therefore, wage rates are established at the going market- clearing wage to raise market wages. On this, critics argue that employers prefer to employ less minimum-wage employees at a higher wage cost. Consequently, more minimum-wage workers remain unemployed, thereby resulting in market failure due to high social costs. Thus in simple words, market failure can be referred to as imperfections occurring in exchange of products and services between buyers and sellers; thereby preventing efficient allocation of scarce resources in the market. Market failures are corrected by governmental interventions only.

**USES OF MARKET FAILURES**

Market failures are not attributed to a single factor. There are various causes that can result in market failures. However, there are four most important causes of market failures,

**Externalities**

**Public goods**

**Asymmetric information**

**Imperfect competition**

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**Externalities**: These can be defined as an impact of production and consumption of products affecting the third-party (one who is neither a consumer, nor the producer of the product). Externalities can be either positive or negative.

**Positive externality** can be defined as the positive impact of the consumption of a product on the third-party. For example, increase in education of individuals can result in an increase in productivity, fall in unemployment and a higher political participation in the country. Positive externality is also known as an external benefit.

**Negative externality** can be defined as the negative impact of the consumption of a product on the third-party. In this case, social cost of an activity exceeds the private cost. Example of negative externality is noise pollution due to various sources, which can be mentally and psychologically disruptive for the nearby people. Negative externalities are also known as an external cost.

It is to be noticed that both the above-mentioned externalities can result in market inefficiencies. In the case of a positive externality, a producer does not like to invest in the activity unless government aids him with asubsidy.Thus, there is under production of such goods. On the other hand, in a negative externality, producers do not take into consideration the external costs and keep on manufacturing large quantities of goods. Thus, both these externalities require governmental regulations to prevent the market failures.

**Public goods:** These are the goods that are characterised by non-excludability and non-rivalry. By non-excludability, it means that a good that benefits an individual can be used by others too to derive the same benefits. Non-rivalry implies that the enjoyment of using a product does not reduce the satisfaction of those who have been using it from a certain time. An example of a public good is the defence system, as it provides protection to all the individuals of a nation. The problem with these goods is that they can be used by everyone after made available making it impossible to regain the costs of provision by extracting payment from users resulting in market failures.

**Information asymmetry:** It deals with the study of decisions in transactions, wherein one party has access to more or better information than others. Due to absence of the same information to all the participants, individuals or organisations are unable to make the right decisions. This results in an imbalance of power in transactions that can lead to market failure. Due to information asymmetry, the following two problems occur:

**Adverse selection**: This implies taking the advantage of asymmetric information before transaction. For example, a person may be more eager to purchase life insurance due to health problems than, someone who is healthy.

**Moral hazards**: This implies taking the advantage of asymmetric information after transaction. For example, if someone has car insurance he may commit theft by getting his car stolen to reap the benefits of the insurance.

**Imperfect market conditions:** Market failure is also caused due to imperfect market conditions, such as monopoly (existence of a single supplier in the market) and oligopoly (existence of few firms that control the market). In imperfect market structure, organizations have market power to influence prices. This can result in inefficiencies due to the following:

1.Existing firms have the power to raise prices to increase their profits while the demand remains the same.

2.Various barriers to entry by other firms restrict competition in the market.

3.To prevent market failures due to the presence of market power, government interventions are required to correct the market operations or set prices at a competitive level.

**PRICE REGULATIONS**

Price regulations are governmental measures dictating the quantities of a commodity to be sold at specified price both in the retail marketplace and at other stages in the production process. These regulations act as control measures or emergency economic measures in the case of imperfect competition to prevent probable market failures. For example, in monopolies, sellers have complete market power of controlling the pricing decisions and setting prices higher than in competitive markets. In such a case, demand for the product does not lower down, which can lead to market failure. Thus, the government is required to intervene in the scenario to prevent market failures. By using price regulations, the government not only controls the functioning of the market, rather protects consumer welfare.

**Price ceiling**: A price ceiling can be defined as the price that has been set by the government below the equilibrium price and cannot be soared up above that. For instance, price ceiling occurs in rent controls in many cities, where the rent is decided by the governmental agencies. The rent is allowed to rise at a specific rate each year to keep up with inflation. However, the rent must remain below equilibrium. It is observed that a shortage occurs by setting price ceiling. This is due to more demand than there is at the equilibrium price at which the price of the ceiling is defined. Moreover, supply is also reduced than the supply at the equilibrium price. This results in increased demand of the commodity than the quantity supplied. Consequently, marginal costs are exceeded by marginal benefits resulting in inefficiencies equivalent to the deadweight welfare loss.

The shortages created by price ceilings can be resolved in many ways without increasing the price. Following are the ways that can be used to resolve shortages:

**First come first serve**: This is the most common way of resolving the shortage, wherein, the person who comes first gets to buy the product. A common example of this is the people standing in line at the counter of a cinema hall to buy the tickets to a movie.

**Lottery**: It is a type of lucky draw, where one lucky person who picks the right numbers is allowed to make the purchase. The lottery system is could be a way to dole out a product that is facing a shortage. For example, some chargers may use this system to determine the persons who could buy the limited tickets to a special game of football.

**Sellers’ selection**: Another way of resolving the shortage due to price ceiling is allowing sellers to select the buyers to whom they want to sell their products. For example, many landlords select renters to rent based on certain criteria (such as preference for the married couple and without pets).

**Choice of government:** On many occasions it is left to the government to make the selection of buyers. For example, to deal with the shortage of gasoline in 1979, the California government allowed the sale of gasoline to those who had license plates of their vehicles ending in an odd number on the odd days of the month.

**Price floor**: A price floor is said to exist when the price is set above the equilibrium price and is not allowed to fall. It is used by the government to prevent the prices from hitting a bottom low. The most common example of a price floor is the setting of minimum daily wages of a labour worker, where the minimum price that can be paid

to labour is established. This is mostly done to protect the farmers. A predominant condition for price floor to be effective is to place the price floor above the equilibrium price. If the price is not set above equilibrium, the market does not sell below the equilibrium price and the price floor will become inappropriate.

**REGULATIONS AND MARKET STRUCTURE**

Economic efficiency is not met by simply producing goods at the lowest possible cost, but also providing individuals with products and services in the desired quantities, qualities, places and with minimum use of society's scarce resources. Perfect competition is a rare market situation and markets often deviate from the ideal situations. Most deviations from the ideal do not impose significant costs on the society. However, when these deviations are significant there is a need for government regulation. For example, firms may acquire extreme market power (monopoly), undertake deceptive practices, conspire, etc. In this section, you will study about major regulations imposed on monopolies. To protect the interest of the consumers, the government exhibits certain regulations on monopolies. If an organization controls the market share, smaller organisations may find it difficult to enter and flourish in the market. For example, the dominance of Microsoft incites the government need to exercise some regulations. The government regulates the monopoly market by using the following methods:

**1. Price regulation using RPI – X:** Using the price capping method, the government can control the price charged by private industries dealing in the supply of water, electricity, fuel, etc. The government is able to limit the potential price rise imposed by these industries based on the RPI – X (Retail Price Index)method. RPI – X is calculated by subtracting the mortgage interest payments from the Retail Price Index. The value of X is meant to reflect the potential cost savings by the firm due to either increased efficiency or technological progress. Let us understand this with the help of an example: Suppose the RPI inflation rate is 5% and the government predicts that an organisation gains 2% at this inflation rate. In this case, the government would permit the organisation to increase its prices by 5 – 2 = 3%. This way, the organisation can raise its prices as per the prevailing inflation. In addition, organisational

gains are translated into lower prices owing to the government regulation.

**2. M erger policy:** Mergers and acquisitions expand monopoly power. The Competition Commission of India prohibits anticompetitive agreements, abuse of dominant position by monopolies and regulates mergers and acquisitions.

**3. Regulation price using rate of return method:** The rate of return regulation method considers the firm size to evaluate a reasonable level of profit from its capital base. If the firm earns more profit compared to its size, the government may enforce price cuts or charge a tax.

**PRICE REGULATION AND FIRM**

**BEHAVIOUR**

**Price ceiling and firm efficiency:** The most common regulatory system under the price ceiling is the price cap regulation. A price cap regulation is used to set a maximum allowed price for a specific product. Price cap regulation has a direct impact on the firm’s efficiency. Let us understand this with the help of an example. Consider a gas distributor that sells LPG to local consumers. The firm can be regulated using the two policies. The firm may either operate under a regulatory system that limits profits to a set level (assuming the limit at ` 20 lakh). Alternatively, the firm may operate under price cap regulation, where it can set the price of LPG at a cap of 5 cents per megajoule (Mj). At this price, the firm can sell 1,00,000 Mj resulting in a profit of ` 30 lakh. Firm profits are computed as revenue less costs of production. The costs of production would include billing and servicing customers, routine and emergency maintenance, cost of wholesale gas, etc. If the costs of retailing and distributing 1,00,000 Mj of gas are ` 10 lakh, then the firm would earn a profit of ` 20 lakh under the price cap regulation. In other words, the firm makes identical profits under either of the two regulatory systems with identical levels of output and costs of production.

**Price floor and firm efficiency:** Price floor is a price regulation system where a minimum price is determined for selling a firm’s product. A price floor encourages firms to increase their output beyond the consumers’ demand. The government purchases the surplus, which is equal to the quantity supplied minus the quantity demanded, at the floor price. As a result, the marginal cost of production exceeds the marginal profits of the firm resulting in a deadweight loss for the firm. Therefore, price floor results in a decline in the efficiency of the firm.

Deadweight loss refers to the benefits lost to either consumers or producers when markets do not operate efficiently. The term deadweight denotes that these benefits are not available to either party in a transaction. A price ceiling may result in a deadweight loss because at any price below the market equilibrium price, quantity supplied will be below the quantity supplied at market equilibrium, resulting in a loss of surplus to producers. Consumers would purchase less than the market equilibrium quantity, resulting in a loss of surplus to consumers. Consumers would also

tend to purchase less than the quantity they demand at the price set at the ceiling. The surplus lost by consumers and producers is deadweight loss.