



EFFICIENCY

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- Economists use to refer to how closely a market structure satisfies a given optimal criterion, and so is a way of assessing the desirability of a particular structure

PRODUCTIVE EFFICIENCY

- The level of average costs in comparison to the minimum that is feasible
- A productive efficient producer or market is one that is operating at the lowest point on the average cost curve
- A productive efficient producer or market is one that maximizes its output from a given amount of resources

ALLOCATIVE EFFICIENCY

- The way that resources and products are distributed, comparing a given distribution to that which would maximize the level of utility in the market
- An allocative efficient market is one that distributes and uses resources in the way that produces what consumers most value; and then distributes those products to those who will gain the most utility from them

- Allocative efficiency is achieved when the price is equal to the marginal cost:

$$P=MC$$

- The price that consumers are willing and able to pay for a product is an indication of the value that they place upon it; and the marginal cost is the cost of the extra factors of production necessary to produce the particular unit of the product

- If $P > MC$, producers are extracting too much money from consumers and so the product is likely to be under-consumed
- If $P < MC$, producers are not receiving enough revenue to cover the cost of the extra unit and so there is too much consumption

PARETO EFFICIENCY

- The total amount of utility that is enjoyed within a market, comparing this to the maximum that could feasibly be obtained
- A market is Pareto efficiency is a state in which no one can be made better off without making someone else worse off
- This can be illustrated diagrammatically by maximizing the total surplus in a market
- It is a state in which there is both productive and allocative efficiency

- If the market **was not productively efficient**, overall welfare could be increased simply by using the resources available in a better way to increase the number of products produced for the consumers to enjoy
- If the market **was not allocative efficient**, the overall welfare could be improved by redistributing the resources and products in the way that would mean that more of the products that are most valued are produced and that these are distributed to those who gain the most utility from them

PERFECT COMPETITION AND EFFICIENCY

- Productively efficient – the strong competition disciplines all producers to accept the market price that is at the level that simply covers their costs – the price is at the lowest point on the producer's average cost curve

- Assuming that those consumers who most value a product are willing and able to pay the highest price for it, a perfectly competitive market is also allocatively efficient
 - These consumers are those towards the left-hand side of the market demand curve and so are the ones who actually receive the products
 - Those who do not receive a product are situated towards the right of the curve and do not purchase a product because it does not bring them enough utility for it to be rational for them to pay the market price for it
- The market is distributing the products in the manner that will maximize overall utility

- As there are productive and allocative efficiency within perfect competition, there is also Pareto efficiency
- There is no part of the potential area that is neither consumer nor producer surplus and so the market, for the given conditions, is maximizing welfare

- That's why congestion and queues are underirable in the sense that one can always improve on the situation
 - Under-pricing and the consequential excess demand
 - The people that are lucky enough to be served quickly may not be the ones that would be willing to pay most for the service
 - By making a higher charge, we can make sure that people with the highest value of that particular facility get to use it and the extra revenue extracted from them will be sufficient to more than compensate those that are price off the facility
 - The net result is that, everyone can be made better off