Market structure is divided into four categories: Perfect competition, Monopolistic competition, Oligopoly and Monopoly. The difference among them is the degree of competition. In this essay, I will analyze and compare the two extremes of them: Perfect competition and Monopoly.

Perfect competition is the most competitive kind of market structure. It is considered as an ideal form of economic organization for providing goods and services to consumers as efficiently as possible. Its characteristics are:

① There are many firms in the industry, thus an individual firm's contribution to total industry supply is so small that whether a firm produces at full capacity or not at all, market price will not be significantly affected.

② There is a freedom of entry into and exit from the industry firms. There are no significant financial, legal, technological or other barriers to new firms entering the industry or existing firms leaving it.

③ Each firm is a price taker and has no influence on the market price. They are unable to affect the prices by changing the amount of product that are offers for sale. This is because the output is such a small portion of total industry supply that has nearly no effect on market supply. Therefore the firm has to be a price taker, otherwise, it will reduce profit.

④ All firms in the industry sell identical/homogenous product. It makes perfect competition so extremely competitive and so rare. The important thing is that the product of a firm is considered by the buyers to be the same as that of any other firm. Therefore, in the mind of the buyer, each firm's product is viewed as a perfect substitute for the product of any other firms in the market. This ensures that no buyer has any economic incentive to pay any firm higher price for the product than is charged by other firms because buyers will compare the prices and find out which firm would charging them less for an identical product.

The other extreme of market structure is Monopoly. A pure monopoly is an industry composed of a single seller/producer with hardly any substitute and with high barriers to entry. Unlike the firm under perfect competition, the monopoly firm is a "price-maker". The firm can set price for its products. However, monopoly firms cannot whatever price they like, they can

only charge the maximum price that the consumer is willing to pay

There are three conditions that give rise to a situation in which one seller or one firm is able to have sole control over the output of an entire industry: They are (1) the firm's exclusive ownership of a unique resource, (2) the existence of economies of scale, (3) the legal granting of a monopoly by the government. These three reasons are the legal source of a monopoly.

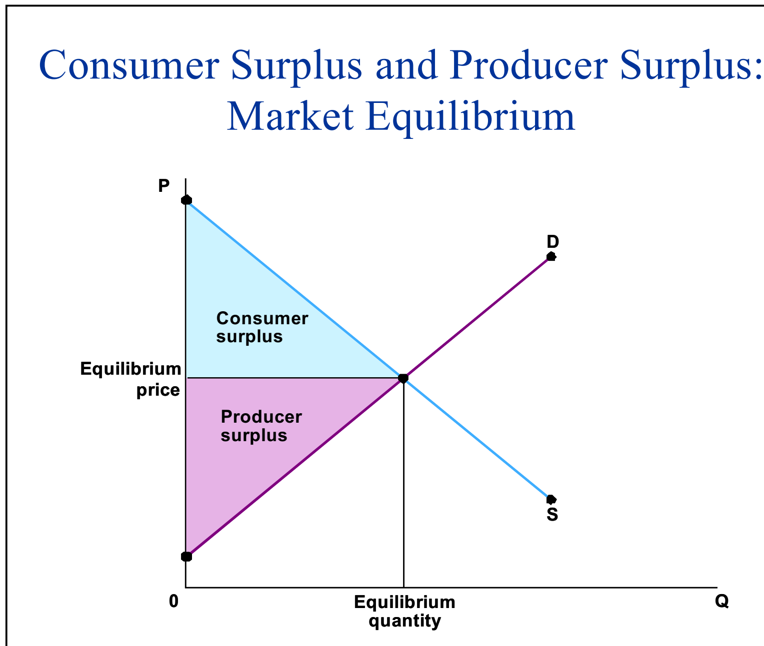
The firm is a monopolist and it owns the unique resource. A pure or absolute monopolist is a one-firm industry. A single firm is the only producer of a given product or sole supplier of a service. The monopolist's product is unique in the sense that there are no good or close substitutes available. From the buyer's point of view, this means that he has no alternatives which he can turn to. He must buy the product from the monopolist or give up buying.

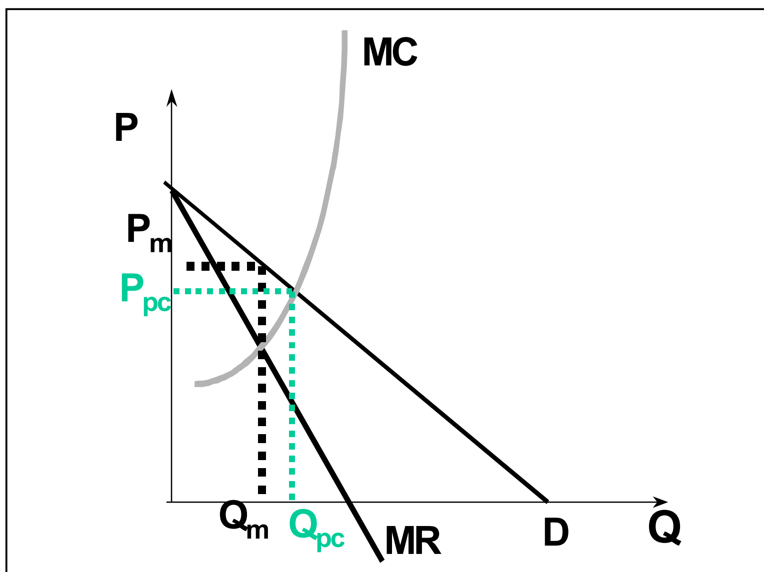
'Low unit cost may be achieved only through large-scale production. Such economies of scale put potential entrants at a disadvantage.' (Harvey, 1969) To be able to compete effectively, a new firm has to enter on a large scale which can be costly and risky. In a natural monopoly, economies of scale are so significant that only a single firm can survive in the industry. In such cases competition will not work and government sets up some regulations to control the natural monopoly such as electricity natural gas water and telephone services. In the industries provided such services, economies of scale create natural monopolies which have enough capacity to produce 100 percent of the industry need for its goods or services, and there is no close substitute for the product. 'Public utilities, for instance, are privately owned firms that provide an essential public service. They are granted a monopoly because it is felt that competition would be harmful to the public interest.' (Harvey, 1969) Sometimes the power of government is used to determine which industry or firm is to produce certain good and services, e.g. legal barriers such as license, patent, copyright and trademark. Licensing creates a type of monopoly by restricting the ability of firms to enter certain industries and occupations, copyrights and patents. Patent grants an inventor a monopoly over a product process for a certain period time. Copyrights are similar in effect to patents in that they give authors exclusive legal control over the production and reproduction of their work for a certain period of time.

Sunk cost is also a major barrier of entry. It is a kind of fixed cost. For instance, Gas or water companies built and own the pipelines all over the country. These are the sunk costs because they cannot be removed and the cost can only be recovered through continuous sales. If

a firm wants to enter into this industry, he will have to build another system of pipelines or it will lack of access to distribute channels. But it is no point of doing that, for the sunk cost is too high to recover, and the existing companies are too strong to compete with.

The difference of allocative efficiency between perfect competition and monopoly can be compared by using consumer surplus and producer surplus (I.e. by using economic welfare) Consumer surplus measures economic welfare from the buyer/consumer perspective. It is the amount that a buyer is willing to pay for a product minus the amount the buyer actually pays. A lower market price will increase consumer surplus, a higher market price will reduce consumer surplus. Producer surplus is the amount a seller is paid for a product minus the total variable cost of production. It measures economic welfare from the seller's perspective and it is equivalent to economic profit in the long run.





In the diagram, MR is the demand curve of monopoly, which has half the

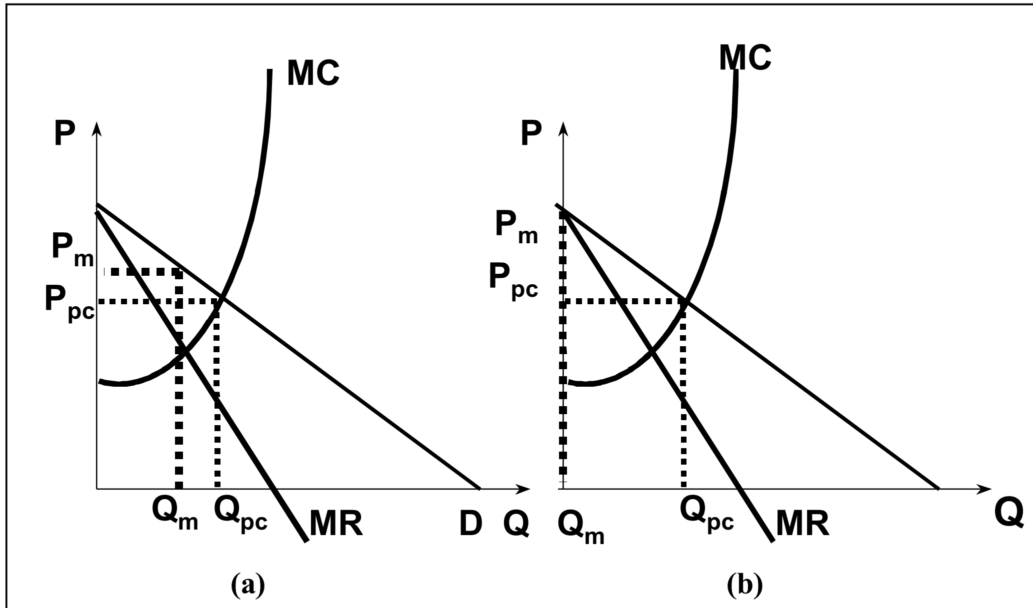
gradient of D curve because of the economies of scale. Consumer surplus is the area below the supply curve and above the market price. Producer surplus is the area above the demand curve and below the market price. Profit is maximized when it reaches the equilibrium.)

In monopoly, the marginal cost curve is the supply curve, and the marginal revenue curve represents the price. Profit is maximized when MC=MR. Compare with the Perfect competition, we can see the output in monopoly is less than that of perfect competitive output but the price is higher, the area of consumer surplus gets smaller and producer surplus gets bigger. Producers take out part of consumer surplus and turn it into producer surplus, that means producers gain more welfare in monopoly than that of consumers. At the same time, there is a loss in both consumer and producer surplus due to the limited output in the firm in monopoly, that is the deadweight welfare loss. The deadweight welfare loss is the loss in economic welfare.

Under monopoly, the firm may have lower costs than in a competitive industry due to economies of scale. As I mentioned before, gas and water companies invested a large amount of money into building pipelines, which is a fixed cost. Alone with the increasing output, the average cost of producing each additional unit of gas and water decreases. Unlike perfect competition, the costs in each unit of goods and services are the same.

Since the consumer and producer surplus changes in monopoly and producers want to maximize their profit, price discrimination is practiced in such market structure to convert consumer surplus into producer surplus or profit. In these situations, consumers are exploited to increase the profits of the monopolist. It will enable the monopolist to obtain a higher total revenue and thus higher profit than if he charges a single price for the whole of the market. There are three main categories of price discrimination: (1) First degree (perfect) price discrimination, where the firm sells each unit at the maximum price that the consumer is willing to pay. (2) Second degree price discrimination, where producers charge different prices for 'blocks' of output. (3) Third price discrimination, where the seller divides consumers into groups or segments such as age group, and charges a different price to each group.

Here I am only going to assess the first degree (perfect) competition because it will make the



comparison more significantly. As we can see the difference between these two figures in the diagram above, the firm sells its goods and services at the maximum price in figure (b), both the consumer surplus and deadweight welfare loss is covered by producer surplus. Therefore, no loss will be in this kind of monopoly. However, this kind of situation is unlikely to happen.

In summary, the implications of changing from perfect competition to a monopoly charging a single price is the increase in producer surplus, the decrease in consumer surplus and also the change in deadweight welfare loss. Since each degree of price discrimination has its own characteristics, It is very hard to judge if the price discrimination is beneficial or not because different people have their own views on it. People pay high prices may think it is not fair of paying such high prices while others pays relatively low prices for the same goods or even better ones. However, sellers/producers will always benefit from it in most cases.

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