Economic welfare is the benefits the buyers or sellers gain when buying or selling based on which a voluntary trade between two individuals will take place. It differs while in different market structures. Hence in this essay, I would like to take a view at the implications for economics welfare of a market structure changing from perfect competition to a monopoly charging a single price and what else would happen if the monopoly practiced price discrimination.

Market structure is a description of the degree of competition in a market. The market structure under which a firm operates will determine its behaviour; this behaviour then will in turn affect the firm's performance or efficiency in the use of scarce resources. (Sloman, 2001, p120) According to the degree of competition, the market structure can be divided into four categories: perfect competition, monopolistic competition, oligopoly and monopoly. The extremes are perfect competition and monopoly.

In perfect competition, there are many sellers and buyers under extreme competitive condition, and all the firms in it have no power to affect the price of the product, they are all 'price takers'. The products they produce are homogeneous and there are no barriers to entry, if the level of profitability is high, every firm can enter the market freely. Moreover, the producers and consumers all have perfect knowledge, which means they are all very aware of the prices throughout the market.

The short-run equilibrium for both industry and a firm under a perfect competition can be shown in Figure1.

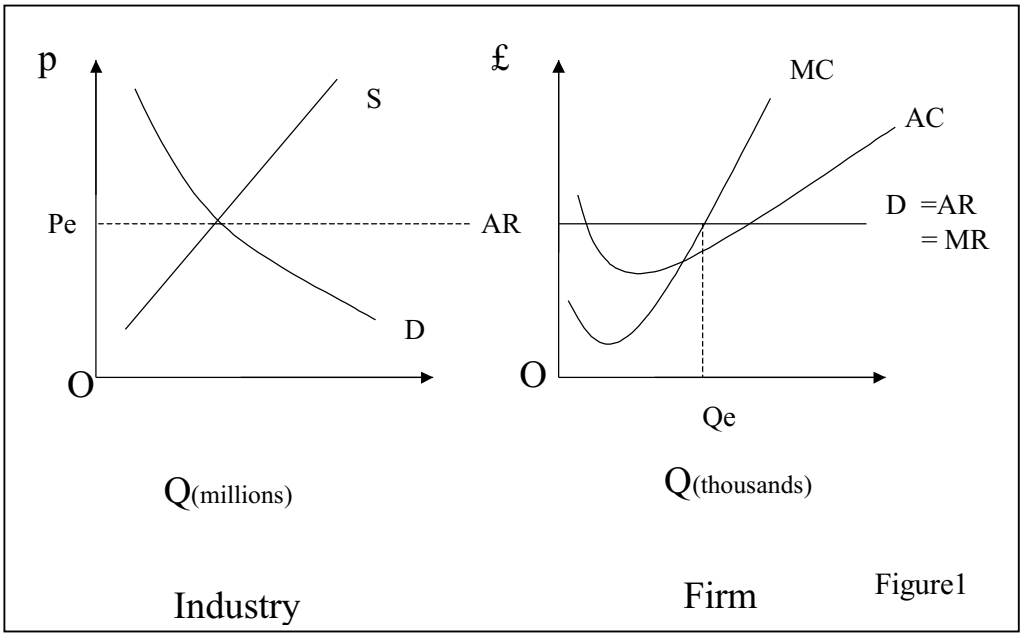

Figure1

As a firm is only a 'price taker', it has to sell its product at the market price which is shown as a horizontal demand curve. The firm would sell nothing at a higher price, its demand curve is perfect elastic. So the marginal revenue equals price, so does the

average revenue, and the firm will maximize its profit at Qe where marginal cost equals marginal revenue. At that point, if the average cost is below average revenue, the firm can make a supernormal profit which is shaped in the figure.

In the long-run in a perfect competition, as new firms would enter and established firms would expand, the supply of the whole industry would increase, shifting the supply curve to the right and causing the price falling until the firms can make only normal profits. This can be shown in Figure2.

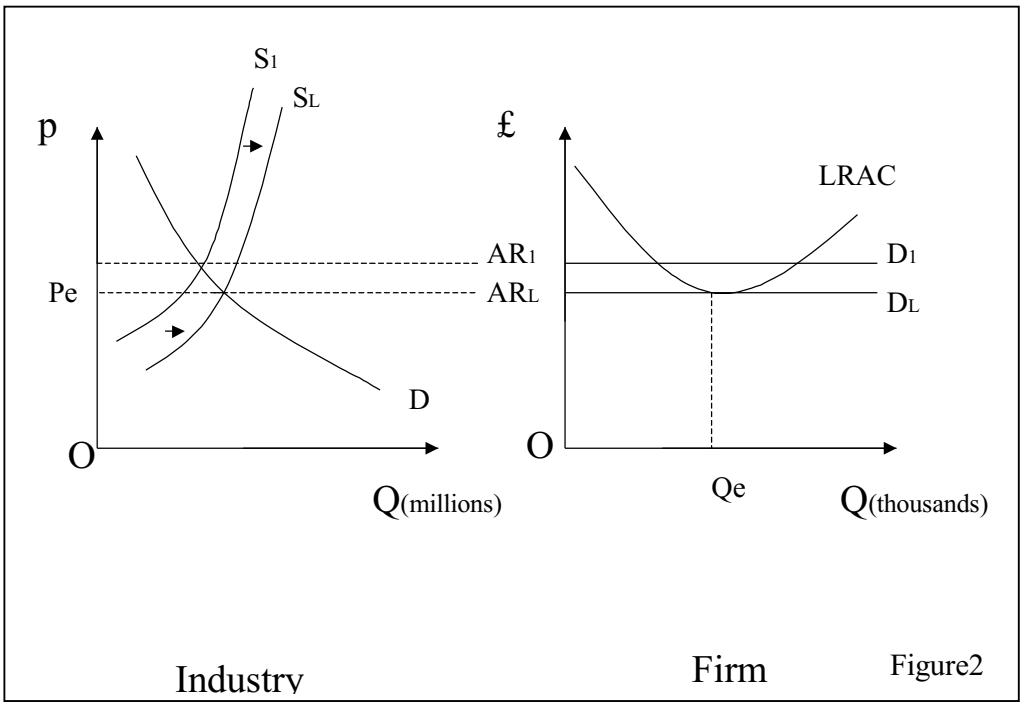

Figure2

A monopoly is the case that only one firm exists in the industry. The only firm has strong power to control the price, it is the 'price maker', but the strength depends on the closeness of substitutes produced by rival industries. A very significant feature of a monopoly is that there must be very strong barriers to block the entry of new firms. Barriers can be various. If the monopolist's costs go on falling significantly up to the output that satisfies the whole market, the industry may not be able to support more than one producer, this is known as natural monopoly. (Sloman, 2001, p129) The water supply industry is a good example because it is very expensive to build up a pipeline. Therefore, it is very difficult for a new firm to enter on a large scale, and the established firm could charge a price below the cost to drive the new firm out of the business because it is experiencing economies of scale. Also, government regulation and patent is a very strong barrier to entry. Moreover, there are some more such as intimidation, mergers and takeover, etc.

Because there is only one firm in a monopoly, the firm's demand curve is also the

industry demand curve, so the equilibrium can be shown in Figure3.

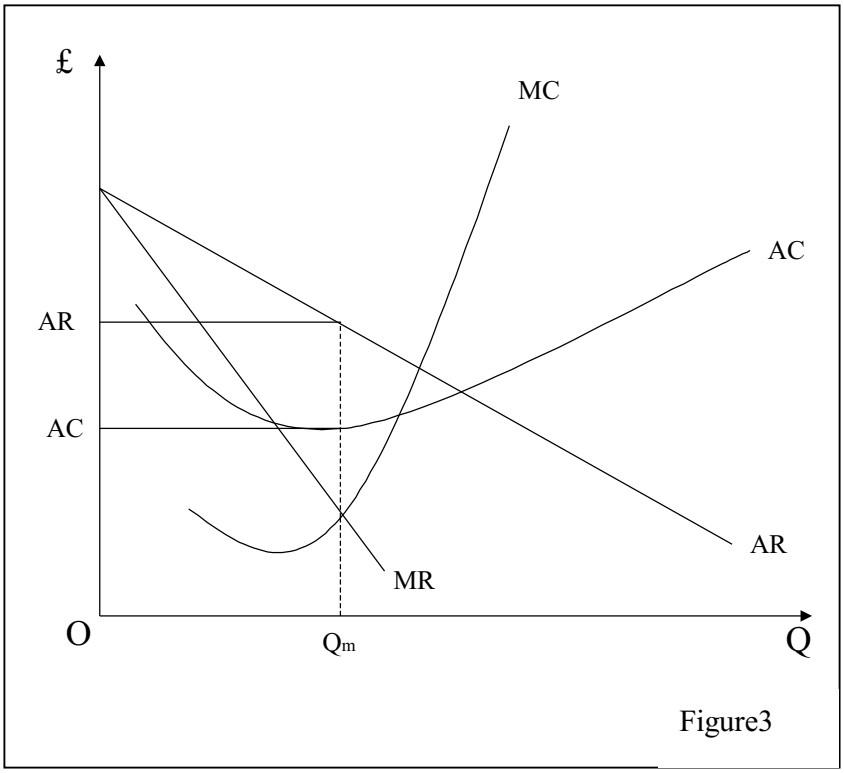

Figure3

From the figure, we can see that although the monopoly firm can charge any price it like, it is still constrained by the demand curve because if it charges a higher price, the demand would decrease. It can maximize its profit at Qm where marginal revenue equals marginal cost.

Then, if we put the equilibrium of the industry under perfect competition and monopoly with a same marginal cost curve together, the situation can be shown in Figure4.

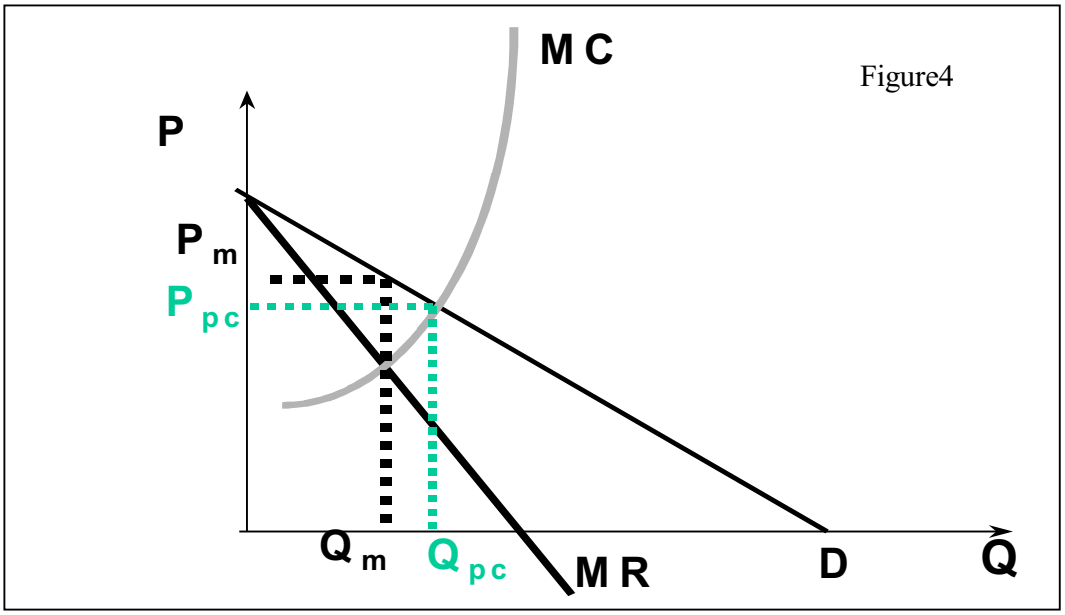

Figure4

In perfect competition, marginal revenue equals price, so the profit maximizing point is Q_{pc} where marginal revenue equals marginal cost. For a monopoly, the marginal revenue curve is always below average revenue curve, the profit will be maximized at Q_m. Therefore, a monopoly will produce less and charge a higher price than a competitive industry.

Then, I would like to turn to economic welfare. It is the benefits gained by the buyers and sellers, of which the benefits gained by the buyers is called consumer surplus and that gained by the sellers is known as producer surplus. The economic welfare is the consumer surplus plus the producer surplus. Consumer surplus is the difference between the price the consumers are willing to pay and that they actually pay. It can be illustrated by the marginal utility curve and is determined by the demand curve. Producer surplus is the difference between the price the producer are willing to accept and that they actually accept. It can be illustrated by the marginal cost curve and is determined by the supply curve. (*lecture notes*)

Therefore, according to Figure5, in perfect competition, the total utility gained by the consumers is 0ABQ, what they actually pay is 0PBQ which is what the producers' total revenue, but they the amount of total cost they spend is 0CBQ. So, the consumer surplus is ABP and the producer surplus is BCP.

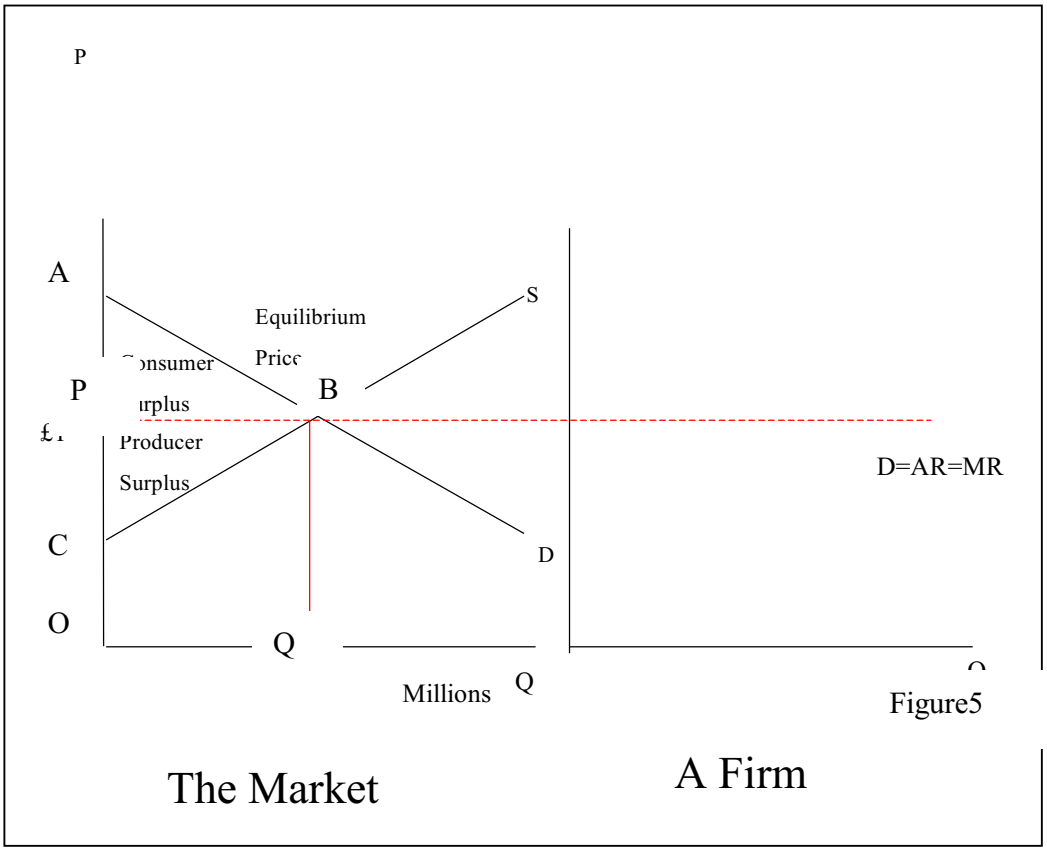

Figure5

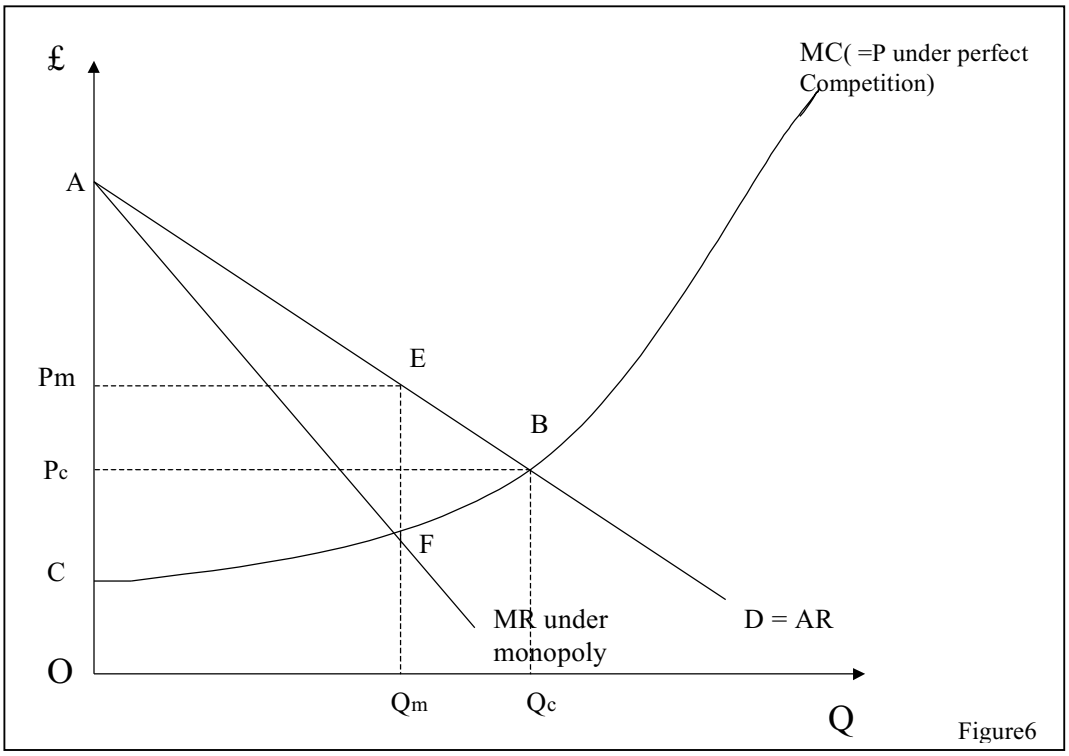

Figure6

According to Figure6, if a monopoly has the same marginal cost as a competitive industry, as the monopolist charges a higher price and produces more, it produce a higher producer surplus of CPEF but supplies a lower consumer surplus of AEP. The most significant result is that the total economic welfare falls. This loss in economic welfare is called "deadweight welfare". So, generally, the economic welfare would decrease if the structure of a market changing from perfect competition to a monopoly.

On the other hand, the economic welfare represents the allocative efficiency and productive efficiency. When the value consumers place on a good or service equals the cost of the resources used up in production, which means the price equals the marginal cost, allocative efficiency is achieved and the economic welfare is maximized. That is because if the price is higher than the marginal cost, consumers put a higher value on the production of extra units, so more should be produced; if the price is lower, consumers put a lower value, then less should be produced. Only when price equals marginal cost, the level of production is right. (Sloman, 2001, p126)

Firstly, it is only in perfect competition that price equals marginal cost, so it is said that allocative efficiency can only be achieved in perfect competition. And the average total cost is at its lowest point, the firms can only make normal profit by charging a minimum price, they have to try to achieve productive efficiency, otherwise they would make a loss.

Secondly, there are two possibilities to explain the inefficiency of monopoly:

"X-inefficiency" and "rent-seeking activities". If a firm faces little or even no competition, it would not work as efficiently as it could, and the monopolist would not pay enough attention to cost control and management, so there would be some extra resources wasted due to inefficient using. This is known as X-inefficiency. On the other hand, in order to obtain special favors, especially for monopolist to make the barriers to entry strong enough, the firms might try in various ways such as lobbying government. These activities are called rent-seeking behaviour. It would cause an expenditure of resources and increase the costs. Because of X-inefficiency and rent-seeking behaviour, both the consumer surplus and economic welfare would decrease which is shown in Figure7.

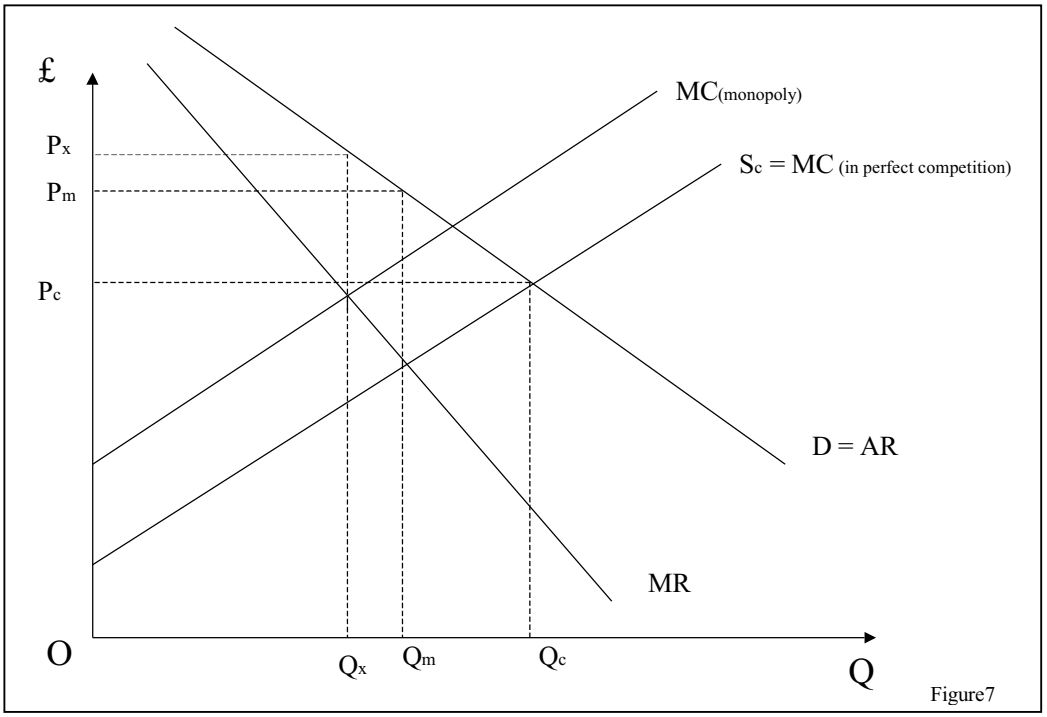

Figure7

But, a monopoly also may have lower costs in production than a competitive industry. The crucial factor is that of economies of scale. The firms in perfect competition are too small to achieve economies of scale. But monopolist has enough power to lower by producing more.

Another reason why a monopoly may be more efficient than perfect competition is that the monopolist could spend part of its supernormal profit on research and development. The firms in perfect competition are too small, they have to struggle for survival and therefore have no additional resources to spend on research and development. The result is that their technology of production always be backward. But monopolist does not need to be too worried about its survival, so it could spend a lot on research and development to increase its productive efficiency.

Moreover, the situations above are all under the condition of that the firms charge a

single price, a monopolist could maximize its profit by applying perfect price discrimination. This refers to charging different prices for different units of the same goods or service. Firms always try to click up consumer surplus.

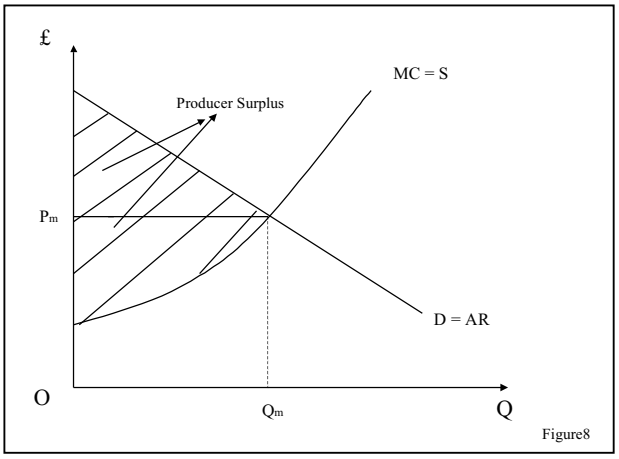

Figure8

According to Figure8, if the monopolist can apply perfect price discrimination by selling each unit at the maximum price the consumers are willing to pay, the producer surplus is shaped tri-angle ABC, and the consumer surplus is all converted into producer surplus, but the economic welfare equaling the producer surplus does not decrease.

To sum briefly, as a general rule, the perfect competition could make a greater economic welfare,, but in some cases, monopoly could be more efficient by applying its advantages well. To some extent, the amount of economic welfare is contingent.

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