# Section 1: The Definition of Price-Searching

As mentioned in the previous lecture, in MSE, the market structure opposite to price-taking is usually called “monopoly” which is misleading. It is more appropriate to call it “price-searching”.

Why is “monopoly” misleading? Because the definition of this market structure in MSE is wrong. In MSE, the market is believed to be monopolistic when there is only one producer in the market. The English “monopoly” comes from Greek, meaning “selling alone”. However, when there is only one producer or supplier in the market, is it really monopolistic? As already mentioned in the previous lecture, the key feature of the so-called monopoly is that the producer (monopolist) has the pricing power, so monopoly is also called price-making. He can indirectly influence the market price by changing output, while the producers in the market structure of price-taking can only accept the price prevailing in the market. Therefore, the question is: when there is only one producer in the market, can he really have pricing power?

The answer is no. Suppose the market structure is price-taking, according to MR＝MC, the optimal output q\* of a producer can be determined. With the equilibrium price, the total supply and demand in the market must be equal, which is supposed to be Q\*. And suppose there are n producers in the market and they are all the same, so Q\*＝nq\*. Obviously, it is possible that n＝1 which means there is only one producer in the market in equilibrium. It has been supposed from the beginning that the market structure is price-taking, so when there is only one producer in the market, it is possible that he is not a monopolist.

How does it happen? Even if there is only one producer in the market, it does not mean that he can really have pricing power. If the market structure is actually price-taking, and the only producer naively thinks that he is a monopolist and raises the price, he will get an income higher than the opportunity cost or a “supernormal profit”. According to the zero-profit theorem already introduced in the previous lecture, it cannot be equilibrium, because the potential competitors outside the market will try to enter the market to seize the supernormal profit.

For example, for the sake of simplicity, suppose that the demand in a market is only one unit of good, and the price that is in line with the market structure of price-taking is originally 10. If the only producer in the market raises the price to 15, there will be supernormal profit of 5. The outsiders will compete to enter the market by offering a lower price (such as 14). Remember that it is price-taking which means there is no difference in quality or location for different producers’ supply, consumers will only choose the lowest priced goods, so the original producer will be eliminated for his higher price of 15.

However, the price of 14 is still higher than 10, and there is still supernormal profit of 4. The outsiders will continue to compete to enter the market by offering further lower price (such as 13) to eliminate the producer who offers 14. As long as the price is higher than 10, the only price in line with the market structure of price-taking, there will still be supernormal profit in the market and the zero-profit theorem is not yet satisfied. The outsiders will still compete to enter the market by offering lower price until the last directly offers the price of 10. Then there is no supernormal profit in the market any more, and neither will the outsiders have incentive to compete to enter the market.

The above is only an imaginary process. As long as the cost of entering the market (including transaction cost) is low enough, and the outsiders are smart enough (i.e. the information cost is low enough), the first producer who competes to enter the market will directly offer the price of 10 which is sufficient to eliminate the only producer in the market and will not be eliminated by other outsiders. In fact, if the only producer already in the market is smart enough, he will not be so foolish to believe he is a monopolist, and never dares to raise the price higher than 10, and he will know clearly that a supernormal profit does no good to him and will only attract potential competitors from outside the market.

A producer’s competitors are far more than those visible in the market, but including huge potential competitors outside the market who will flock in at any time when there is supernormal profit in the market. It is shortsighted and stupid to think the only producer in the market is a monopolist with pricing power. Under some condition of cost, only one producer may be enough to meet all demands in a market, which does not mean the market structure is monopolistic and is possible to be price-taking.

Thus, the key to the market structure is not the number of producers in the market, but whether it is free to enter the market or, more precisely, whether the cost of entering the market is low enough. Let us continue to take the above example to illustrate. If it costs 3 for the outsiders to enter the market, the only producer already in the market can raise the price to 13. Although he can earn 3 more for each unit of good, the outsiders have to spend 3 first to enter the market, and they will suffer a loss if charge a price between 10 and 13 after entering the market. As a result, the only producer in the market can search a price that is most favorable to him at will between 10 and 13. It is precisely why the concept of monopoly should be revised to price-searching.

The entry cost (or, more vividly, the entry threshold) is the key to whether the market structure is price-taking or price-searching. With the protection of entry threshold, the producers already in the market (the number of producers needs not be one) more or less can influence the price by increasing or decreasing outputs to a level that is most favorable. The concept of price-searching or so-called monopoly should not be defined by the number of producers in the market, but by the shape of the demand curve faced by the producer in the market. When the demand curve faced by a producer is a flat line, the market structure is price-taking; while when the demand curve faced by a producer is a curve sloping downwards, the market structure is price-searching.

Someone may ask: in the market structure of price-searching, a producer can get more revenue (such as 3 more in the above example). Is it out of line with the zero-profit theorem? The answer is no. If there is no protection of entry threshold, how can the producer in the market search a price most favorable to him? The additional revenue of 3 is actually the return on the entry threshold, so it is the rent of it. In other words, the so-called “monopolistic profit” is not supernormal profit, but monopolistic rent due to the entry threshold. And rent is cost, not profit.

A detailed analysis of how the entry threshold is formed can help us understand why the monopolistic rent is actually cost instead of profit. There are three kinds of formation.

(1) The entry threshold has been formed before a producer enters the market. The producer has to pay the entrance fee of 3 when entering the market. Before entering, it is direct cost. Once entered, it becomes historical cost which is no longer opportunity cost. If the expectation of the producer is correct, the difference of the income and direct cost (the overhead cost) should be 3, so the monopolistic rent of 3 only covers the payment of entrance fee, and not supernormal profit at all.

For the outsiders, before entering the market, the entrance fee of 3 is direct cost, so the direct cost of them is higher than that of the producer already in the market. Unless they can try to reduce the direct cost (in this example, it is 13), they cannot compete with him. And even if the direct cost of the outsiders falls, but does not fall below the direct cost of the producer already in the market (in this example, it is 10), he can prevent them from entering by cutting the price into the overhead cost (in this example, it is 3). As mentioned in Lecture 13, the competition from outsiders will protect the overhead cost of insiders, while overhead cost will protect insiders from avoiding competition from outsiders. Therefore, the essence of the monopolistic rent or rent of the entry threshold is overhead cost.

(2) The entry threshold is built by a producer after entering the market. When the producer enters the market there is no entry threshold, so he has not paid any entrance fee. But after he has entered the market, in order to prevent the outsiders from competing with him, he builds an entry threshold of the market. Of course there is cost for the construction of the entry threshold, which is supposed to be 3 in the above example. Before the entry threshold has been built, the construction cost is direct cost, while after that, it also becomes historical cost.

If the expectation of the producer is correct, he can get higher income of 3 for each unit of good by price-searching, which will cover the construction cost of the entry threshold, so the essence of it is also overhead cost, not supernormal profit.

(3) The entry threshold is formed out of expectation. When the producer enters the market there is no entry threshold, so he has not paid any entrance fee. And after he has entered, neither has he built an entry threshold, so there is no construction cost. But an entry threshold is formed out of thin air due to the sudden change of some constraints after the producer has entered the market, so he is protected by it without paying any cost.

In this case, the additional revenue of 3 is an unexpected income or profit. However, once this unexpected luck has happened, the profit from the entry threshold will become opportunity cost or monopolistic rent, and it is no longer profit.

In conclusion, the value of the entry threshold for price searching or monopoly is monopolistic rent which is cost, or more precisely, overhead cost.