# Smoking should not be banned in restaurants.

Aiichiro Kohno

Considering the social profit, the tobacco should not be prohibited completely.

Certainly, the tobacco brings the damage to other than smokers. First, the people around receive healthy damage with the smoke of tobacco. If they do not smoke, this damage is one-sided from smokers. Because of this, for example, at the restaurant, with a lot of cost thrown, the smoking seat should be built. Next, the social burden is required for the healthy damage of smokers. The cost of the healthy damage is not paid by only smokers. By the health insurance system of government, half or more of medical expenditure is borne by society.
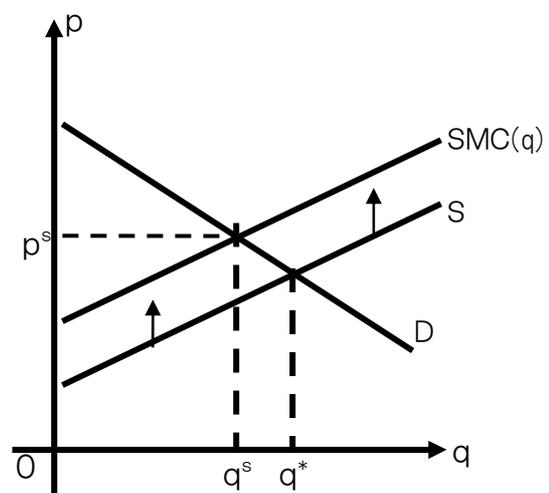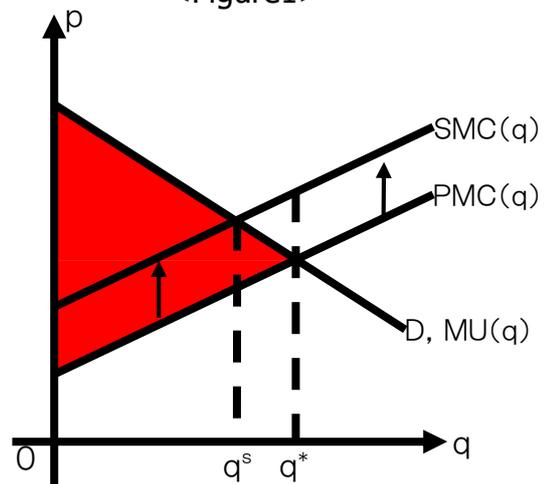
So, should we regulate completely

<Figure1>

<Figure2>

tobaccos which have a lot of serious problems? Let's analyze the tobacco by economics. Please look at Figure1. This figure shows the market of the tobacco, and the graph which displays the relationship of demand or supply for tobaccos. In the graph, the vertical axis shows the level of price (p), and the horizontal axis shows the quantity of production (q). D means Demand function; S means supply function (private marginal cost function, PMC). q* which is the abscissa of the point where mutual function crosses, is the quantity of production which the market decides. And, the total nominal profit of the producer and the consumer in this market is the area between demand function and supply function. This area is displayed by the painted part in Figure2.

However, in fact, the tobacco gave people around the damage in addition to private cost. In consideration of that, the amount of the damage makes cost increase, and the real function is shown by SMC (social marginal cost function) in the graph (the damage is shown by SMC-PMC). Then, considering social damage, q^s which is the abscissa of the point where the SMC



<Figure3>
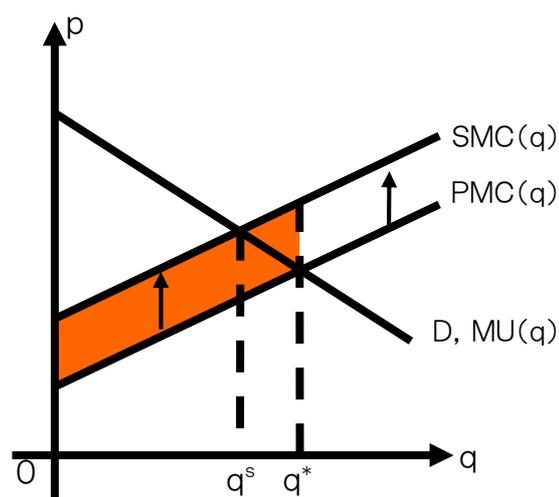
and demand function cross, is optimum quantity of production. With this SMC, we can illustrate some profits. When the quantity of production was q*, the painted part in Figure3 ((SMC-PMC) × q*) is the total of the social damage by the tobacco. The profit in Figure2 minus the total damage in Figure3 leaves the painted part in Fiure4.

This area shows the real profit, when the quantity of production was q*. Next, if the quantity of production becomes q^s, the social profit is shown by the area between D and SMC. This area is displayed in the painted part in Figure5. As compared with Figure4, in Figure5, the quantity of production is not q* but q^s, and the social profit increases.

<Figure4>
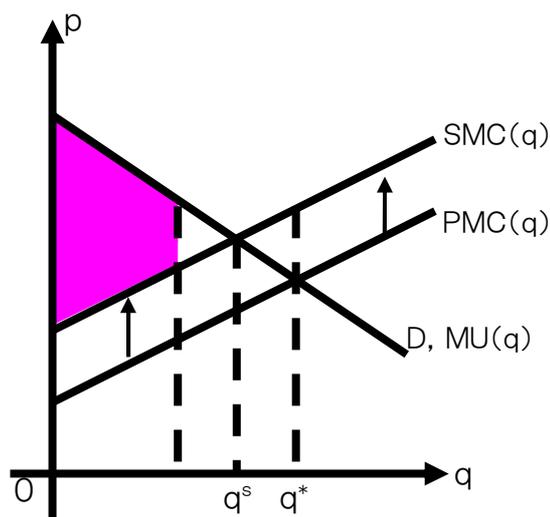
That means the quantity of production should be certainly decreased from q* to q^s but the quantity should not be q=0. That is because q=0 makes the utility of smokers and the producers of tobaccos also disappear. The smoker and the producers also have the right to acquire utility. Like q = q^s in the graph, with the optimal quantity produced and consumed (or with the price of tobaccos set to p^s), the social profit can be maximized.

<Figure5>
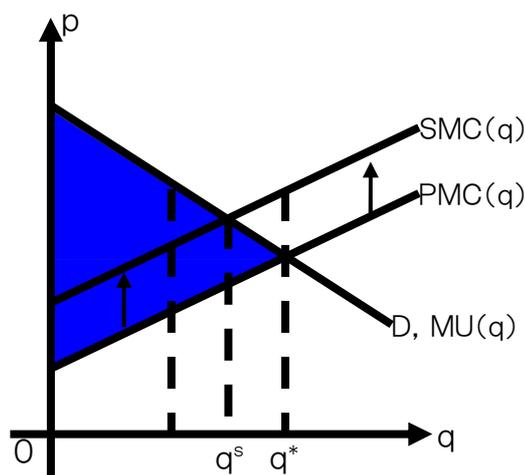
Then, in order to maximize the social profit, what should the staffs of restaurant do? Smokers bring tobaccos from outside of restaurant, so the staffs cannot adjust the quantity of the tobacco directly. But, the staffs can increase the

real price of the tobacco. For example, they can require the smokers for the fixed money as the charge on smoking allowed. With this charge, the restaurant company will be able to improve the seats for smokers and pay government more taxes in order to help the expenditure of health insurance.

That is why the tobacco should not be prohibited completely and the fixed smoking should be allowed in case smokers the social cost of damages.