

## \* Market failure and its sources :

When the market mechanism fails to achieve an efficient allocation of resources, the market failure is said to occur. The major sources of market failure are :

(i) Externalities

(ii) Public Goods

(iii) Market Imperfection

Here we will take the case of externalities and how externalities results in market failure.

## \* Externalities and Market failure :

In the process of production, distribution, consumption of certain goods, there are harmful and/or beneficial side effects called ~~by~~ externality.

The externalities are borne by people who are not directly involved in the market exchanges.

These side effects of economic activities are called external benefits when the effects are beneficial and external costs when they are ~~beneficial~~ harmful. Thus, we may have positive externality or negative externality.

1. positive ~~ext~~ externality in consumption.

An example of this is vaccination. They help not only the person vaccinated but also the entire community or neighborhood that the person lives in by preventing the spread of contagious disease (say, Corona virus).

2. Negative Externality in Consumption.

Suppose a person rides a noisy motor cycle. The rider gets an

enjoyment from it. But the other people living in the neighbourhood, for them, the noise is a disturbing one.

### 3. Negative Externality in Production:

A popular example is that of a paper mill that produces paper and a waste that is dumped into a river. The riverside residents and the fishers are hurt by the waste.

### 4. Positive Externality in Production:

An often quoted example is that of the production of honey. Beekeepers try to put their beehives on farms because the nectar from the plants increases the production of honey. The farmers also get an advantage from the beehives because the bees aid in the pollination of the plants.

Let us analyze the consequences of externalities and how they lead to market failure.

For overall economic efficiency, marginal social cost (MSC) should be equal to marginal social benefit (MSB). As long as  $MSB > MSC$ , production should be expanded because additional benefits exceed additional costs. Similarly, if  $MSC > MSB$ , then production should be decreased.

\* Negative Externality in Production :

The negative externality in production is illustrated in figure 1. Here we assume that there are no externalities in consumption, the demand curve 'DD' shows the marginal private and social benefits ( $MPB = MSB$ ). The competing supply curve, reflects only the marginal private costs (MPC). The MSC curve lies above the ~~MSC~~

Competitive supply curve. The optimal output is  $Q_0$  with a price  $P_0$ . But the competitive market, if left alone, will produce  $Q_1$  with a price  $P_1$ . Thus, there is a tendency to overproduce. At the 'optimal quantity' of output  $Q_0$ , the price would be equal to  $P_0$ , but MPC would be  $C_0$ . Thus government could impose a per unit tax of  $(P_0 - C_0)$  on the firm, increase MPC by  $(P_0 - C_0)$  and reduce output from  $Q_1$  to  $Q_0$ .

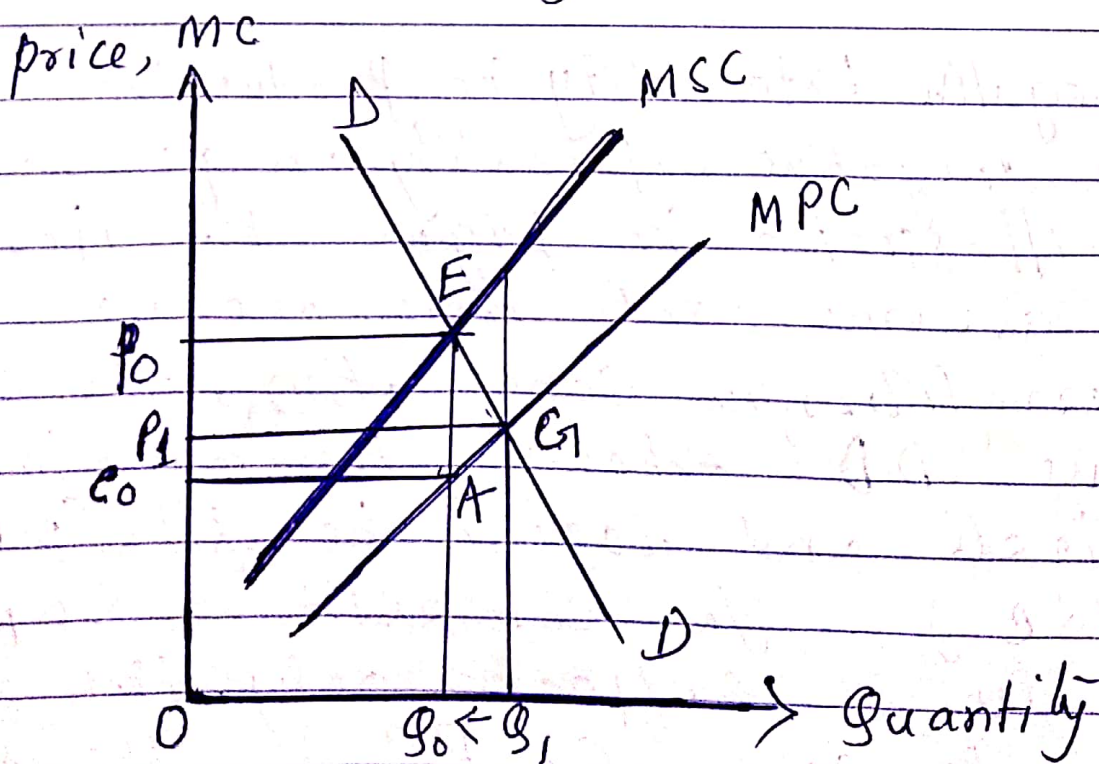


Fig. (1)

Consumers would pay, the full marginal social cost (MSC) of production.

The revenue from the tax could be used ~~for~~ to pay for the external damages from the production of this product.

The net gain to society from the tax is given by the triangle AEG in figure 1.