

Asymmetric Information and the Market Failure

The example of sale of used cars brings out how asymmetric information leads to market failure, that is, failure to achieve Pareto efficiency. This is due to the *externality* between the sellers of high-quality and low-quality used cars. When some individuals try to sell their low-quality cars, they affect the buyers' perceptions of the quality of the average car available for sale in the market. This causes reduction in the price that they are willing to pay for the used cars available in the market which hurts the individuals who want to sell their good or high-quality cars. Because of asymmetric information, that is, the buyers cannot easily determine the quality of used cars; they can do so only after they have purchased them and used them for a while. As seen above, the *asymmetric information creates the lemons problem and drives good cars out of the market and thereby harms the welfare of the owners of good quality used cars who want to sell their cars*. Thus, externality created by asymmetric information prevents the achievement of Pareto efficiency and creates market failure.

The Insurance Market and Adverse Selection

After Akerlof who first analysed the lemons problem created by asymmetric information in the market for used cars, his analysis has been extended to the markets for insurance, financial credit and labour employment. These other markets are also characterised by asymmetric information. In this section we will study how Akerlof's analysis has been applied to the insurance market.

In the case of insurance, the insurance company has less information about the state of health of the individuals who want to get their life insured or want insurance for sickness or in case of general insurance about the accident proneness of their cars, etc. Let us take the case of insurance against illness. Suppose there are two groups of individuals who want to ensure for the risk of illness. One group of individuals belong to high risk group. The second group is of low risk individuals. The possibility of their becoming ill and therefore becomes entitled to claim insurance money is P_H and P_L respectively. The individuals belonging to both these groups get themselves insured and the insurance company is not able to distinguish between them. While insurance company does not know the true state of their health, the individuals, that is, the buyers of insurance, are fully informed about the likelihood of their becoming ill. Thus, this is a case of imperfect asymmetric information.

Suppose the cost of insurance is C . If the insurance company is to recover at least the cost of insuring them against illness, then the insurance premium to cover both the high-risk and low-risk individuals which we denote by I is given by

$$I \geq C\bar{P}$$

where \bar{P} is weighted probability of their becoming ill.

As the individuals know their risk of becoming ill, as is being assumed here, while the individuals with low risk (P_L) may not be willing to buy the insurance, given the above insurance premium, the individuals with high risk will be very much eager to buy it. This is because $\bar{P} > P_L$, the insurance premium will be much greater than CP_L in case of low-risk individuals. Therefore, the low-risk individuals are likely to drop out and in that case to recover the insurance cost of high-risk individuals, the insurance company will have to raise the rate of insurance premium. As a result, only the high risk individuals will buy the insurance and the *individuals with low risk of illness will go without insurance*. Thus, as in case of used cars, the problem of adverse selection also arises in case of insurance market. In fact, the term adverse selection was first used in case of health insurance because the insurance company *do not get unbiased selection of individuals who buy insurance policy and it is only the high-risk individuals who purchase it*. In such a situation the insurance claims will mostly be made by the individuals with high risk and as a result the insurance company *who charges premium rate on the basis of average risk of both kinds of individuals with high-risk and low risk of illness will go bankrupt*.

More about Imperfect Informations

of adverse