# Section 2: The Second Version of Coase Theorem

(2) Version II: With clear delineation of rights, the resource use through market transactions will bring the highest value.

This version was also put forward by Coase in the paper “Federal Communication Commission”.

However, it is actually a tautology, because with the postulate of self-interest, all behaviors (including the behavior of resource use through market transactions) must be optimal under the current constraints. Therefore, under the constraint of “clear delineation of rights”, resource use must bring the highest value, otherwise it is not optimal, which will be out of line with the postulate of self-interest. Thus, this theorem is a tautology, and cannot be wrong or refutable.

On the other hand, since the postulate of self-interest has determined all behaviors must be optima under the current constraints, even without clear delineation of rights, and the resource does not used through market transactions, it will still bring the highest value. Even if there is rent dissipation due to lack of delineation of rights, and the value of resource or asset drops to zero, it is still the highest! Compared with negative, zero is the highest. It is just another constraint that there is no delineation of rights.

Of course, Coase might mean the value of resource without clear delineation of rights will be lower than that with clear delineation of rights. However, there is transaction cost for the clear delineation of rights, so if it is higher than the transaction cost (rent dissipation) in the case without clear delineation of rights, the net value of resource or asset may not be the highest.

It is necessary to introduce an important concept of “Pareto-optimality” in welfare economics. In welfare economics, efficiency is defined as whether it is Pareto-optimal. As mentioned in Lecture 5, welfare economics is wrong in judging “to be or not to be” with efficiency, because it is impossible that there is inefficiency or waste with the postulate of self-interest. This mistake will be discussed in detail here.

When introducing the concept of “optimum” in Lecture 7, it has been explained that there is no difference between optimum and self-interest. How can a self-interested person choose a non-optimal option? Thus, individual optimum is the same as the postulate of self-interest.

How about social optimum? The Pareto-optimality here precisely refers to social optimum. State A in a society is “Pareto-preferred” to some other state B if, under A, everyone is at least as well off as under B and at least one person is better off. Thus, a state is “Pareto-efficient” or “Pareto-optimal” if no available alternative is Pareto-preferred to it. In other words, everyone in the society has been optimal without at the cost of harming the others. If one can make a change that at least makes another one better off while all the others as well off as before, it means the society is still not in the state of Pareto-optimality, and he should make that change (“Pareto-improvement”).

The postulate of self-interest ensures that all behaviors must be optimal for individuals, but can it ensure that they must be optimal for the society? With transaction cost taken into account, the answer is yes. If a change benefits someone without harming the others, the self-interested beneficiary must make it happen and no one will stop him. The problematic case is: if a change benefits someone but will harm another, but the beneficiaries gain a lot, while the harmed only suffer little, so the benefits are more than harm. If the beneficiaries take part of the benefits to completely compensate the harmed, this case is still Pareto-optimal, so the change should happen. However, in reality, it seems that this kind of change sometimes does not happen.

Why? The reason must be that there is too high transaction cost of negotiating compensation between the beneficiaries and the harmed. How much benefit and harm does the change cause? There is high information cost to know it, and negotiation will also cause high transaction cost. If the transaction cost of reaching an agreement is higher than the net benefit after the beneficiaries completely compensate the harmed, the society is actually in a worse state due to the change. Therefore, the state after the change seems to be better off than that before the change only because the transaction cost of the change has not been taken into account. In other words, the constraints before the change do not include the transaction cost of the change, while the constraints after the change do. Different constraints are not comparable.

Based on the above analysis, it is easy to understand the problem of the second version of Coase Theorem. The value with clearly delineation of rights and resource use through market transactions is higher than that without them, and the latter seems to be inefficient or wasteful. However, there is transaction cost of delineation of rights and market transactions. If it is too high (higher than the increase in value with them), it is not worthy. The constraint with clear delineation of rights is different from that without it. More specifically, the former constraint is that “the transaction cost of delineation of rights is low, so rights are clearly delineated”, while the latter constraint is that “the transaction cost of delineation of rights is high, so rights are not clearly delineated”.

In a word, as long as all constraints are taken into account (especially the constraint of transaction cost), it must be Pareto-optimal, which means there can be no so-called “inefficiency” or “waste”, so the value must have been the highest under the current constraints.

What is more, as mentioned before, the equilibrium condition is equivalent to the equal marginal principle. Since equilibrium is the same as optimality, Pareto-optimality is also equivalent to the equal marginal principle. Welfare economics introduced the concept of Pareto-optimality in order to prove that the market structure of pure competition is Pareto-optimal because the marginal cost (MC) of producers in price-taking is equal to the marginal use value (MR) of consumers. The economists of MSE think if there is no market, or the market transactions fail to satisfy the equal marginal principle (such as monopoly), these cases are not Pareto-optimal, and are criticized as “Market Failure”. They advocate that government should interfere with the market to make it Pareto-optimal.

However, according to the analysis in this section, there will always be Pareto-optimality if all constraints (including transaction cost) are taken into account. Some market transactions do not seem to satisfy the equal marginal principle, because either the economists of MSE they misunderstand the modes of market transactions[^1], or they neglect the transaction cost. In some cases where there seems to be no market, maybe there do be markets, but the transaction cost of direct transaction is too high and indirect transaction is used, or the transaction cost of market is too high and self-interested people choose not to use the market. The latter case has nothing to do with market failure, just as one chooses not to buy a good if it is too expensive, which is not the case that it is “good failure”.[^2]

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[^1]: For example, as has explained in Lecture 16, in reality, monopolists will adopt use various pricing arrangements to eliminate deadweight loss, so that the MC of producers is actually equal to the MR of consumers.

[^2]: Attention: Keynes believes that the free market will cause aggregate demand less than aggregate supply, thus causing overproduction and economic recession, which is totally different from the “market failure” criticized by the welfare economics. Keynes’s mistakes have been analyzed thoroughly in Lecture 21.